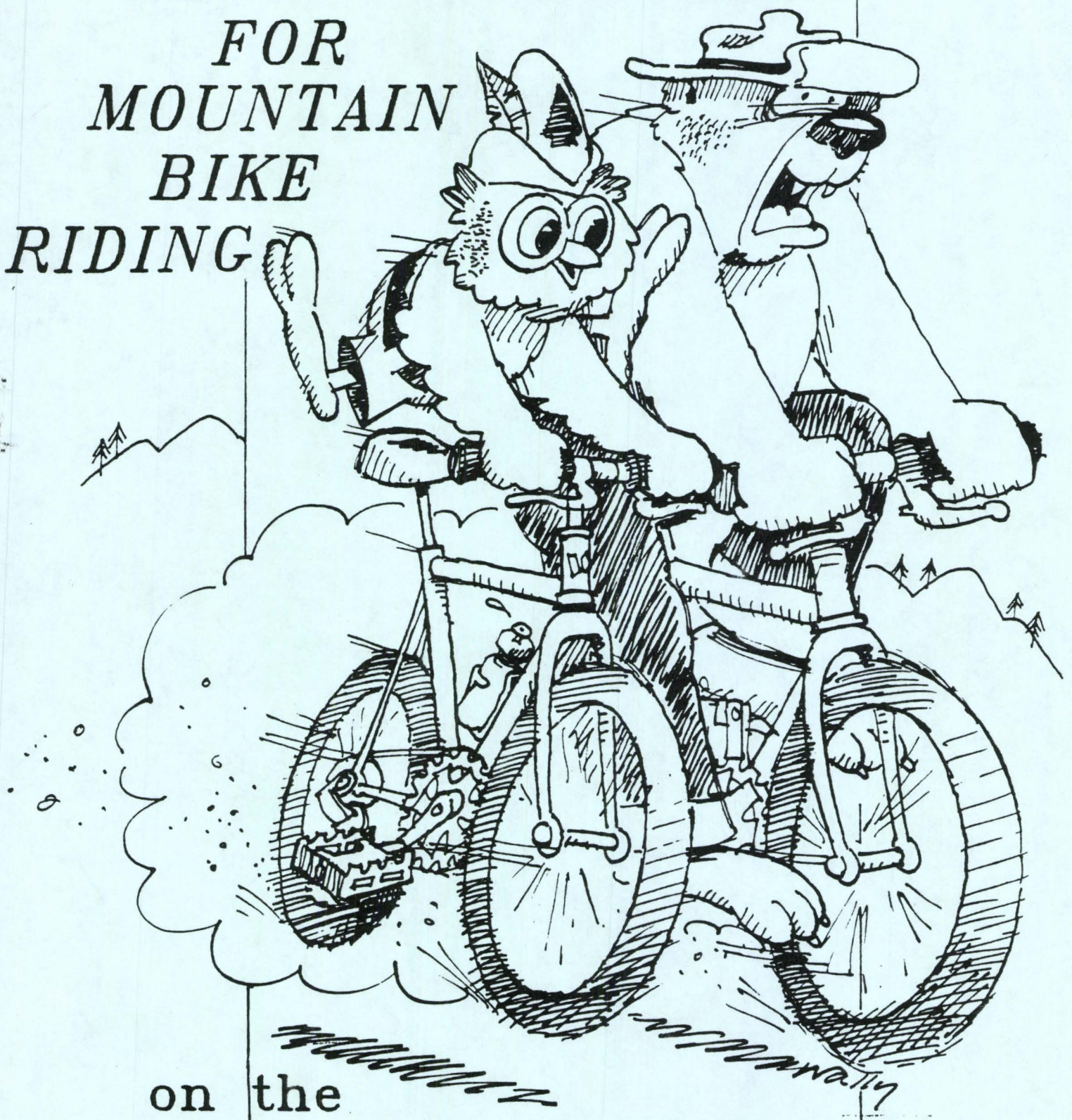
R0006
S920006

LLOYD

DEVELOPING AN EDUCATIONAL PLAN FOR MOUNTAIN BIKE RIDING



on the
Mammoth Ranger District
of the Inyo National Forest

DEVELOPING AN EDUCATIONAL PLAN FOR MOUNTAIN BIKE RIDING ON THE MAMMOTH LAKES RANGER DISTRICT OF THE INYO NATIONAL FOREST

Janis Lloyd
Assistant Recreation Officer
Mammoth Ranger District
P.O. Box 148
Mammoth Lakes, California 93546

Clemson Class of 1989
Final: June 1990

This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. It in no way reflects USDA Forest Service policy nor are the opinions expressed those of anyone other than the author.

ABSTRACT

AUTHOR: Janis Lloyd
Assistant Recreation Officer
Inyo National Forest
Mammoth Lakes Ranger District
P.O. Box 148
Mammoth Lakes, California 93546

TITLE: Developing an Educational Plan for Mountain Bike Riding on the Mammoth Ranger District of the Inyo National Forest

ABSTRACT: Over the past few years, Mammoth Lakes Ranger District has seen an increase in mountain bike riding. Management problems have surfaced as a result of this activity. The District ranks among the highest for visitation by recreationists. During the summer months, visitors can enjoy fishing, hiking, horseback riding, and backpacking.

The purpose of this paper is to develop educational materials, including signing, for mountain bike riding. Through education, potential problems and conflicts may be reduced. This paper analyzes:

1. Mountain Bike User Needs
2. Historical Background
3. Issues Associated with the Sport

By conducting a literature search, contacting land managers, reviewing existing policies, conducting a survey, and reviewing marketing information, information was obtained for developing educational materials. This project results in recommendations for an educational plan and options for trail riding.

Keywords: Mountain Bike, Bicycling, Conflict, Education

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....PAGE i-iv

INTRODUCTION.....PAGE 1

Mountain Bike User Needs.....PAGE 2
Historical Perspective.....PAGE 3
Issues.....PAGE 5

LITERATURE AND OTHER RESOURCE REVIEW.....PAGE 5

METHODOLOGY.....PAGE 9

1.) ISSUES.....PAGE 10

Conflicts between Horseback Riders, Hikers, and Mountain Bike Riders.....PAGE 10
Resource Damage.....PAGE 12
Mountain Bike Riding in the Wilderness.....PAGE 13
Trail Riding.....PAGE 14

2.) RECREATION PLANNING FOR MOUNTAIN BIKE RIDING.....PAGE 15
3.) MARKETING MOUNTAIN BIKE RIDING.....PAGE 16
4.) USER SURVEY.....PAGE 18

Survey Results.....PAGE 20

5.) EDUCATION OPTIONS.....PAGE 31
6.) DISCUSSION.....PAGE 37

Existing Management Direction.....PAGE 37
Discussions with Other Managers.....PAGE 38
Current Situation.....PAGE 40

RECOMMENDATIONS.....PAGE 41

CONCLUSION.....PAGE 46

BIBLIOGRAPHY.....PAGE 49

APPENDIX.....PAGE 50-81

EXECUTIVE SUMMARY

TITLE: Developing an Educational Plan for Mountain Bike Riding on the Mammoth Ranger District, Inyo National Forest

AUTHOR: Janis Lloyd
Assistant Recreation Officer
Inyo National Forest
Mammoth Ranger District
P.O. Box 148
Mammoth Lakes, California 93546
619-934-2505

SUMMARY: The Inyo National Forest is known for it's diverse recreational opportunities. Mammoth Lakes Ranger District ranks among the highest for visitation by recreationists. Visitors can enjoy a variety of summertime activities including fishing, hiking, horseback riding, backpacking, and the growing sport of mountain bike riding. The World Mountain Bike Championships have been held at the Mammoth Mountain downhill ski area since 1986. With mountain bike riding on the increase, Mammoth Mountain Ski Area is proposing to develop a mountain bike park. Should this proposal become reality, mountain bike riding will continue to increase rapidly on the Mammoth Lakes Ranger District.

Most of the trails on the District are closed to mountain bike riding. Illegal use is abundant on these closed trails because of poor user information and failure to provide alternative trails. Each land agency has different rules and regulations pertaining to mountain bike riding. The purpose of this paper is to develop educational materials, including signing, for mountain bike riding. The goal is to help reduce conflicts between recreationists and to increase the awareness of the effects from mountain bikes. In order to achieve that goal, the following items were addressed:

1. Identify mountain bike user needs.
2. Examine the historical background.
3. Recognize issues through research.

During research, the following issues were identified and addressed:

1. Conflicts between horseback riders, hikers, and mountain bike riders.
2. Resource damage.
3. Mountain bike riding in the wilderness.
4. Trail riding.

METHODOLOGY:

The following methods were used to analyze questions that arose during the development of educational materials:

1. Conducted a literature search to determine the issues/concerns with mountain bike riding, how to deal with conflicts, and education techniques being used.
2. Reviewed recreation planning, including existing policies and the Land Management Plan, to identify current direction for management of mountain bikes.
3. Reviewed Franklin Lewis' Marketing Plan for developing a marketing action plan.
4. Conducted a survey to recognize the mountain bike user's perspective on some of the issues that were identified during the research process.
5. Developed education options through the research conducted.
6. Contacted other land managers for information on signing and education techniques used.

RECOMMENDATIONS:

Through research and analyzing the survey results, the following recommendations were made for developing educational materials for mountain bike riding. Recommendations are also made in regards to trails riding.

1. Implement an education plan that includes:
   a. marketing outline
   b. handout/brochure

c. video/interview

d. message channel on local TV station

e. information sign with a box for handouts

f. news release

g. trade show participation

h. association with bicycle dealers

i. Specialized Bicycle Component's waterbottle program

j. signing symbols

k. Carsonite information signs

2. Marking a mountain bike route on the ground.

3. Open the blue diamond trails in the Lakes Basin to mountain bike use when the Mammoth Lakes Pack Outfit is not in operation.

4. Provide more trails.

5. Use the ROS system for integrating mountain bike riding into management planning.

INTRODUCTION

Mountain bike riding on the Mammoth Ranger District has increased considerably over the last few years. Mammoth Lakes is located at the 7,800 ft. level and offers spectacular views of the eastern slope of the Sierra Nevada mountain range. The World Mountain Bike Championships, sanctioned by NORBA (National Off Road Bicycle Association), have been held at the Mammoth Mountain downhill ski resort since 1986. As the popularity of this sport continues to grow, so does the need for information for the mountain bike enthusiast.

The desire to own a mountain bike seems to be spreading like wildfire across the nation. Two local residents on a one way lane blacktop road in Cecilville, Ca. discussed these strange objects on CB Channel 18, the radio gossip line. "Funny thing Fred, I saw these guys up ahead on bikes, but they just vanished." "Well, they just zoomed by my place going like a bat out of !!!!" "Incredible. Ummm. Maybe I ought to get one of those things. They're making better time on this road than I am" (McHugh, 1987).

As with many aspects of the recreation management field, mountain bike use has increased so quickly that managers have not been able to keep up with the demands it has presented. "No model of bike has ever taken the U.S. market the way these bikes have," reports Bill Wilkinson, director of the Bicycle Federation of America (Foote, 1987). The National Parks, California Department of Parks and Recreation, Bureau of Land Management, Los Angeles Department of Water and Power, County and City Parks, and the Forest Service have different rules and regulations on mountain bike riding. The Inyo National Forest is no

different. Most of the trails on the District are closed to mountain bike riding. Illegal use is abundant on these closed trails because of poor user information and failure to provide alternative trails.

The purpose of this paper is to develop educational materials, including signing, that can be used for mountain bike riders. The goal is to help reduce conflicts between recreationists and to increase the awareness of the effects from mountain bikes. In order to obtain that goal, the following items were addressed:

1. Identify mountain bike user needs.
2. Examine the historical background.
3. Recognize issues through research.

Providing legal opportunities is the key to good management. By providing education on where to ride, it is hoped that the numbers of illegal riders will decrease. By informing riders about the problems that exist and why there are restrictions, the relationship between this user group and the Forest Service will become stronger. Land stewardship is our primary concern. Providing quality recreation opportunities that do not significantly impact the land is a challenge.

Mountain Bike User Needs

There are many different ways to try to educate the public. All avenues should be explored with the mountain bike issue. Through the TV media, local sporting

goods stores, Ranger Stations, campgrounds, and signing our educational message on mountain bike riding can be heard and seen.

In serving the mountain bike rider, we need to know what his/her needs are in respect to mountain bike riding. It is important to know what would be useful to the rider when developing educational material. In an effort to accomplish this task, a survey form was compiled and mailed to selected users. The form was also distributed at local mountain bike shops and at a mountain bike shop in Orange County. Through results of the survey we can get an idea as to whether we are providing the recreation experience for which the mountain bike rider is looking.

For the purpose of this paper, a mountain bike is: a bicycle that has fat tires with a tough tread for riding on the dirt. The frame is study, but lightweight. The gearing system has from 15 to 24 speeds, allowing easier riding of steep inclines. When traveling downhill, it can be stopped easily due to its special brakes. Mountain bikes have many different names. Throughout the paper you may see them referred to as fat-tire bikes or all-terrain bikes (ATB'S). The names are synonymous and are used interchangeably.

Historical Perspective

In 1986, the Mammoth Ranger District developed a mountain bicycle plan for the area with the involvement of a number of individuals in the community. This was in response to complaints from hikers, and concerns about the safety of horse users on the local trails. Comments were also voiced about the damage to

the trails that were constructed as hiking and riding trails. The Environmental Assessment that was written was implemented with a Forest Order that made it illegal to ride a bicycle on trails that were designated closed.

The trails that had generated the most complaints were signed "closed to bicycles". Unfortunately, most of the signs installed have been vandalized and some riders continue to disregard the rules.

As mountain bike use has increased, so has the demand for riding in varied terrain. In July of 1988, the Recreation Officer on the Mammoth Ranger District held a mountain bike workshop to give the public the opportunity to express its concerns and ideas regarding the future of mountain bike opportunities in the area. Participation for the meeting was through letters that were mailed to ten interested parties in the area. Word of mouth spread and approximately 125 people attended the meeting. The District recognized needs to have trail riding experiences available for mountain bikes. However, there is also an obligation to protect the welfare of hikers and horse riders who do not expect to encounter illegal bicycle riders on the trails. Mountain bike riders were encouraged to group together to form a local organization, which they never did. Due to an increased work load in the Recreation Department, the mountain bike issue has not been pursued since this meeting.

Many ski areas are encouraging summertime cycling business by offering mountain bike rentals, riding lessons, and guided tours. Most areas offer detailed trail maps for self-guided off road adventures (Cverdon, 1988). Mammoth Mountain Ski Area has offered mountain bike programs for the past three years. Under the title of Mammoth Adventure Connection, the program offers guided

tours or self-guided trail maps. Families, couples, and singles enjoy rides that range in difficulty from beginner to advanced.

Issues

The following issues were identified through research:

1. Conflicts between Horseback Riders, Hikers, and Mountain Bike Riders.
2. Resource Damage.
3. Mountain Bike Riding in the Wilderness.
4. Trail Riding.

All of these issues are important in the development of educational materials. Each issue is discussed in depth throughout the paper to provide an understanding of it's relevance.

LITERATURE AND OTHER RESOURCE REVIEW

A literature search revealed a variety of references on mountain bike riding. Most of the references contained information on conflicts among recreationists. Little information was found specifically on education with respect to the mountain bike situation.

Marketing information was obtained from readings and lectures from the Clemson Recreation Short Course. Franklin Lewis' paper, A Process to Develop A National Forest Recreation Marketing Plan, provided the outline for the marketing action plan. Marketing information was also provided from Jerry Bird on the Nez Perce National Forest.

Information on conflict management was obtained from readings and lectures from the Clemson Recreation Short Course. Conversations with various land managers provided valuable information on different methods of dealing with the mountain bike situation.

Following is a summary of resource material that was reviewed to provide information on mountain bike riding:

Books

Mountain bike guidebooks are now available for the public. The Mountain Bike Book and Mountain Biking the High Sierra are sold in various bookstores throughout California. The authors of Mountain Biking the High Sierra, Don and Reanne Douglass, live in a small community 30 miles south of Mammoth Lakes. I met with both of them, gaining valuable expertise on the subject of mountain bikes. Don is the President of the International Mountain Bike Association (IMBA). A newsletter is mailed to members on a monthly basis.

Periodicals

Mountain bikes have been a popular topic in many periodicals as the sport has continued to gain momentum. Articles were obtained from the Christian Science Monitor, Money Makers, Mountain Bike, American Forests, National Parks, Southwest Cycling, California Bicyclists, Outlaws in the Outback, City Sports, and IMBA (International Mountain Bicycling Association)-Land Access Alert magazines.

Newspapers

As with magazines, many newspapers now feature articles on mountain bikes. Articles were read from the New York Times, Wall Street Journal, San Francisco Chronicle, Reno Gazette Journal, Los Angeles Times, and the Los Angeles Herald Examiner.

Newsletters/Magazines

Many towns are having magazines printed referring specifically to mountain bike riding. In Crested Butte, Colorado Fat Tire Paradise has been published. In Utah, a Bicycle Utah Vacation Guide is available. Backroads is a magazine that is published in San Leandro, Ca. and contains information on riding in North America, Europe, and around the Pacific.

Marketing Information

Many ski areas offer detailed trail maps for self-guided off road adventures. Mammoth Lakes revolves around the downhill ski resort of Mammoth Mountain. During the 1989 summer season, Mammoth Adventure Connection, affiliated with Mammoth Mountain Ski Area, began offering such services to the mountain bike rider. Brochures advertising services from Mammoth Adventure Connection, Fat Tire Tours of Winter Park Colorado, and Mount Snow of Vermont were reviewed.

Commercial Outfitters

Many other commercial outfits are in the mountain bike business and offer tours. Advertisements obtained include: Rim Tours in Moab, Utah; Mountain Bicycle Tours in Big Basin Redwoods State Park; Sierra Tahoe Tours; CyclePaths in Lake Tahoe; Mountain Bike Holidays- Otter Bar Lodge on the Forks of the Salmon, Ca.; Crested Butte Adventures in Colorado; Sierra Bicycle Adventures in Kenwood, Ca.

Management Agencies

Mountain bike riding occurs on all types of lands. In response, many agencies have developed handouts or brochures for the public's use. Following are a few that were collected for review: Welcome Canyon Cyclist, Canyonlands National Park; Arroyo Seco Ranger District Mountain Bike Guide; Wasatch-Cache National Forest Mountain Biking Guidelines; Mountain Bicycle Trails on the Fishlake National Forest; BikeCentennial- Mountain Biking in the Missoula area on the Lolo National Forest; bicycling in Washington State Parks; and Mountain Bicycle Guide, Santa Barbara Ranger District.

The Salt Lake Ranger District on the Wasatch-Cache National Forest presented a slide presentation for REI in Utah. The presentation dealt with bicycle use on the National Forest. The script was obtained for review.

METHODOLOGY

While researching the different messages that could be conveyed on mountain bike riding, the following questions arose:

1. Mountain bike riding is on the increase and conflicts among users continues. How can we improve the situation through education?
2. What does the mountain bike rider want to know about the sport? What is their perception on conflicts among users?
3. Are we offering the recreation experience that the mountain bike rider seeks?
4. What are the issues and concerns associated with the sport?

The following methods were used to analyze the above questions:

1.) Conducted a literature search to determine what the issues/concerns with mountain bike riding are, how to deal with conflict, and to obtain information on education techniques being used.

2.) Reviewed recreation planning, including existing policies and the Land Management Plan, to identify current direction for management of mountain bikes.

3.) Reviewed marketing information to provide guidance for developing a marketing action plan.

4.) Conducted a survey to recognize the mountain bike user's perspective on some of the issues that were identified during the research process.

5.) Developed education options through the research conducted.

6.) Contacted land managers, who have involvement with mountain bikes, for information on signing and education techniques used.

1.) ISSUES

Through the literature search, the following issues were identified that need to be considered in the development of educational materials:

Conflicts between Horseback Riders, Hikers, and Mountain Bike Riders

Mountain bike riding is a relatively new sport that occurs in areas that have been traditionally used by horseback riders and hikers. Because of the conflicts between the uses, primarily safety, mountain bikes have been excluded from many of the trails that horseback riders and hikers use. Each use has a different set of social values, creating conflicts between the users.

The attachment to a resource affects the number and extent of the expectations developed. Over time, people may come to use a particular area more for its qualities and the personal attraction it may have for them rather than the activities it provides. This attachment can be very strong and a sense of possession develops as well as definite ideas on how the area should be used. This is often encountered on federal and state lands where local use of an area conflicts with the management plans. Long-time users thus evolve a complex, well-defined set of expectations of appropriate behavior. A manager should expect these people to have a higher likelihood of experiencing conflict with users than other people, particularly the newcomers who do not share the same view of behaviors appropriate for the area (Jacob, 1977).

In the Environmental Assessment for All Terrain Bicycling on the Mammoth Ranger District, safety, social and aesthetic conflicts between stock, hikers, and mountain bikes were identified as critical. Mammoth Ranger District is one of the most heavily used National Forest areas in the country. The main areas where conflicts occur is in the Lakes Basin, Mammoth Rock Trail, and Red's Meadow Valley. In two of these three areas, there are popular trailheads for wilderness hiking. Backpackers, day hikers, horseback riders, and pack stock use many of the trails. Opinions on the conflict between horses and bicycles vary. "The only constant is change... and the fact that people will resist it. If the mountain bike had been around for 200 years, and the horse was just invented," says one trail ranger, "the horse would have the same trouble being accepted on the trail (Grost, 1989). Some areas have had severe problems among users. "When you mix bikers and pedestrians, you're inviting disaster. Blind corners and steep hills have been the scenes of most pileups, which sometimes involve a few hikers and an occasional horse" (Foote, 1987). Lou Roeser, who operates a pack station out of the Mammoth Lakes Basin, said: "One of our guides met a bike coming down the trail and almost went over the edge. They're not compatible with horses (Roberts, 1988)." Margaret Gorski, Recreation Officer on the Mammoth Ranger District said, "Three years ago, we had a group that got together before the sport really took off. Because bicycles are prohibited by legislation in the Wilderness area, and because most of our trails end up in the Wilderness area, we closed almost all of our trails. We haven't been able to enforce it. All the signs we put up have been destroyed" (Roberts, 1988). The Gunnison County Cattlemen's Association in Colorado published a brochure with information on mountain bike riding when livestock is in the area. It was published so that ranching and tourism can continue to coexist, understanding that each has a valuable purpose.

There are many trails that provide fishermen access to the local lakes and streams on the District. These trails are also closed to mountain bikes, due to the possibility of collision if a mountain bike is traveling at a fast speed. Members of the Anonymous Bicycle Club (ABC) of Sacramento sometimes wear bells on their bicycles when riding on trails that have a higher possibility of collision (Rose, 1990).

Resource Damage

The 1986 Environmental Assessment for All Terrain Bicycles on the Mammoth Ranger District listed damage to the resources from cross country riding as a concern. The soils on the district are composed largely of decomposed granite or pumice. These soils are loose and unconsolidated. Bicycle tire tracks easily channel water and can lead to gully erosion on steep slopes (USDA Forest Service, 1986). Currently, Joe Seney, a student of Montana State University, is writing a soil survey on the effects from mountain bikes. Although studies on resource damage from mountain bikes have not been completed, erosion is evident when riding takes place in meadows, steep terrain, or fragile soils. There has been quite a bit of discussion over what the impact on the soils really are from mountain bike riding. "No on has proven that mountain biking is more detrimental than hikers and equestrians" says Scott Nichol, a master frame builder at Ibis Mountain Bikes in Sebastopol, Ca. "When properly used; that is, when not skidded down trails, "they don't cause erosion" says the long time biker who has a degree in soil science (Conover, 1989). "Consider the environmental impact and the legality of what you are doing. If there is an ordinance against, chances are it's not merely to spoil your fun, but rather to

prevent you from doing damage to the natural environment. What some of this riding does to the watershed characteristics of the terrain can be quite serious" (Van der Plas, 1989).

Mountain Bike Riding in the Wilderness

Currently mountain bikes are prohibited in the Wilderness by an official interpretation of the Wilderness Act of 1964, which defined a bicycle as a mechanized device. However, Representative Hansen of Utah has submitted legislation that would allow bicycles in the Wilderness. The International Mountain Bicycling Association (IMBA) does not support this legislation. IMBA states that "Our first priority should be to obtain and maintain access to recreation lands. We need to work with the other user groups and prove that we, too, are dedicated enviromentalists. We need to demonstrate that bicycles do not have the adverse impact of motorized vehicles, and we need to separate ourselves from the motorized OHV lobbies" (Hasenauer, 1989). IMBA has taken the position that bicycles are not even appropriate on all trails outside of the wilderness. They stress that safety and the environment are the priorities. There are quite a few wilderness trails on the Mammoth Lakes Ranger District that are used frequently by mountain bikes. The trails are signed "Motor Vehicles and Bicycles Prohibited", yet use continues on these trails. Many of the trails in the Lakes Basin and Reds Meadows areas lead into the wilderness.

Trail Riding

On the Mammoth Ranger District there are numerous blue diamond cross country ski trails. In the Mammoth Lakes Basin, these trails are utilized by Tamarack Lodge/Resort throughout the winter. In the summer months, these trails are used as horseback trails for the Mammoth Lakes Pack Station. In 1986, all of the Lakes Basin blue diamond trails were closed to mountain bike riding except for two trails. This was done to prevent conflicts between stock use and mountain bike riders. The two open trails are the Horseshoe Lake Trail and the Panorama Dome Trail for a total of four miles. During this process, all other trails were closed to mountain bike riding except for three other blue diamond trails. The blue diamond trails that were left open are the Inyo Craters, Earthquake Fault, and the Shady Rest trails. These trails encompass a total of 16 miles of terrain. There is demand to offer more trails for mountain bike riding, even with approximately 100 miles of dirt roads available for use. The District has 114 miles of front country trails, with the majority leading into wilderness trails. The Lakes Basin offers a setting that is very conducive to mountain bike riding. There are five beautiful alpine lakes located in a forested setting with views of the Eastern Sierra at every vantage point. In the Lakes Basin, the horseback rides take place during the summer months, from June-September.

Bob Larkin, planner for the Toiyabe National Forest, said mountain bikers are welcome everywhere but in wilderness and primitive areas (Vetter, 1989). A lot of mountain bike riding has nothing to do with racing down steep hills. For

those who are more into peace and solitude, cycling on unpaved roads and trails is the more mind-expanding experience (Van der Plas, 1989).

2.) RECREATION PLANNING FOR MOUNTAIN BIKE RIDING

On the Mammoth Lakes Ranger District, the mountain bike has been treated as a vehicle. Mountain bikes are regulated by the 1977 Interagency Motor Vehicle Use Plan. This plan is in the process of being revised for the Inyo National Forest. Mountain bikes are not considered in the revision, except in the event that a road is closed. If a road is closed, the Interdisiplinary Team will recommend whether the closed road should remain open to bicycle use.

In an effort to integrate all of the information that is needed when planning for a certain area, the Recreation Opportunity Spectrum (ROS), was developed. A recreation opportunity has three main parts: an activity, a setting, and an experiential component. A recreation opportunity is then defined as the opportunity to participate in a desired recreation activity within a preferred type of setting to realize desired and expected experiences (Driver, 1985). Mountain bike riding should be included in the ROS system. It can help establish management direction when dealing with the different recreation uses in the planning process. If a trail plan is developed, the ROS system provides the setting and experiential component that must be taken into consideration. Bike trails can range from a dirt "wilderness" trail to a more "urban" paved trail. These different trails provide a variety of types of experience.

The Inyo National Forest's Land Management Plan indicates which areas are primitive, semi-primitive non-motorized, semi-primitive motorized, roaded

natural, roaded modified, and rural. Review of these ROS classifications is necessary for planning mountain bike trails. Direction from the Inyo National Forest's Land Management Plan is to incorporate the increasing demand for mountain bike, equestrian, bicycle and nordic opportunities into composite plans, community plans, trail plans, and programs.

3.) MARKETING MOUNTAIN BIKE RIDING

Recreation marketing is the business of satifying customers--creating "happy faces" (Spray & Efird, 1988).

Marketing begins with the customer-- not with production, costs, sales, or new technology. Marketing oriented companies first determine the current and future needs and wants of their target market (Syme, 1988.)

Marketing and educating are very closely tied. Education can be a very important part of a marketing plan. A marketing plan for mountain bike riding should look at social trends. There are three major factors that affect the recreational demand for our lands; population, money, and time. Baby boomers spend 55% more money on durable goods than any other expenditure. Currently, the average American takes six long weekend vacations a year (McLellan, 1989). The average American is willing to spend money on a mountain bike and will take the time off to enjoy it.

According to Jerry Bird of the Nez Perce National Forest:

> Marketing plans should be customer centered, not organizational centered. The Forest Service is organizationally centered. "Our Agency" is the focus, rather than the customers the agency serves. An organizationally centered, product oriented, agency decides what it wants to do, and then offers internally designed programs and services to the public. An example of this is:
>
> > New User Groups: We know what is appropriate use of National Forest lands. When a new use of technology comes along, we ignore or discourage it. ATV's, mountain bikes, snowmobiles, cross country skiers, and many others were once new activities on the National Forests that we chose to ignore. Only through the pressure and perseverance of the user groups did we finally recognize and accomodate their wants and needs.
> >
> > Visitor's Map: We have specific instructions as to color, scale, appropriate and inappropriate information, and so on. All of these standards were generated by the Forest Service to meet the needs we identified. Little or no attention was given to the wants of the customer. In the normal course of business we didn't even bother to ask them what would be useful to them (Bird, 1989).

The customer's wants and needs should be known and recognized, but it must also be put into the perspective of what the primary management goal is for the land which has been identified in the Land Management Plan. Problems can occur when deciding what a "quality" recreation experience is in relation to user conflicts, and the desire to maintain a "safe" environment.

Marketing action programs: Action programs answer the what, who, and when in implementing the marketing plan. At a minimum, a marketing action plan should identify the following (Lewis, 1989):

-Objective

-Strategy- 7P's (those that apply)

-Target Market

-Benefits

-Partnerships

-Who is responsible for accomplishment?

-Completion Date

-Evaluation- Establish Benchmarks

4.) USER SURVEY

A survey form was developed in order to recognize the mountain bike user's perspective on some of the issues that were identified during the research process. Those surveyed were asked questions pertaining to educational materials, conflicts between users, riding information, and signing.

Two hundred surveys were distributed to the public through IMBA membership, Mammoth Mtn. mountain bike race participants, attendees at the public meeting at the Mammoth Ranger District in August of 1988, Brian's Bicycle shop in Mammoth and Bishop, Sports Chalet in Huntington Beach, and the Mammoth Visitor Center/Ranger Station.

Each survey form had a letter attached with a simple explanation as to why the survey was being conducted. Each survey was printed with a return address and postage-paid. Directions for returning the forms were included in the attached letter. The survey forms were mailed out and taken to the various locations on December 11, 1989. The deadline for responding was January 5, 1989. The response rate was 46 percent. Ninety-one survey forms were returned. Of the 91 forms returned, ten responded that they would like to be involved with this process.

Survey Results

All responses were tallied and given percentages by the author. The analysis of the data consisted of interpreting the responses and writing a brief analysis for each survey question. Written comments are included in Appendix A.

Questions, Responses, and Analysis:

1. How long have you been riding mountain bikes? (see figure 1)

Response:
- 27%: 4 years
- 38%: >4 years
- 35%: <4 years

Analysis: This confirms that the sport has been around for quite a few years and continues to attract new enthusiasts.

2. People have different reasons why they ride mountain bikes. Listed below are some possible reasons. Please put a check by each space that describes why you enjoy riding. (see figure 2)

Response:
- 15%: exercise/fitness
- 12%: solitude
- 12%: adventure
- 12%: scenery
- 12%: challenge
- 10%: relieve stress
- 10%: to be close to nature
- 8%: to develop skills
- 6%: group activity
- 3%: family togetherness

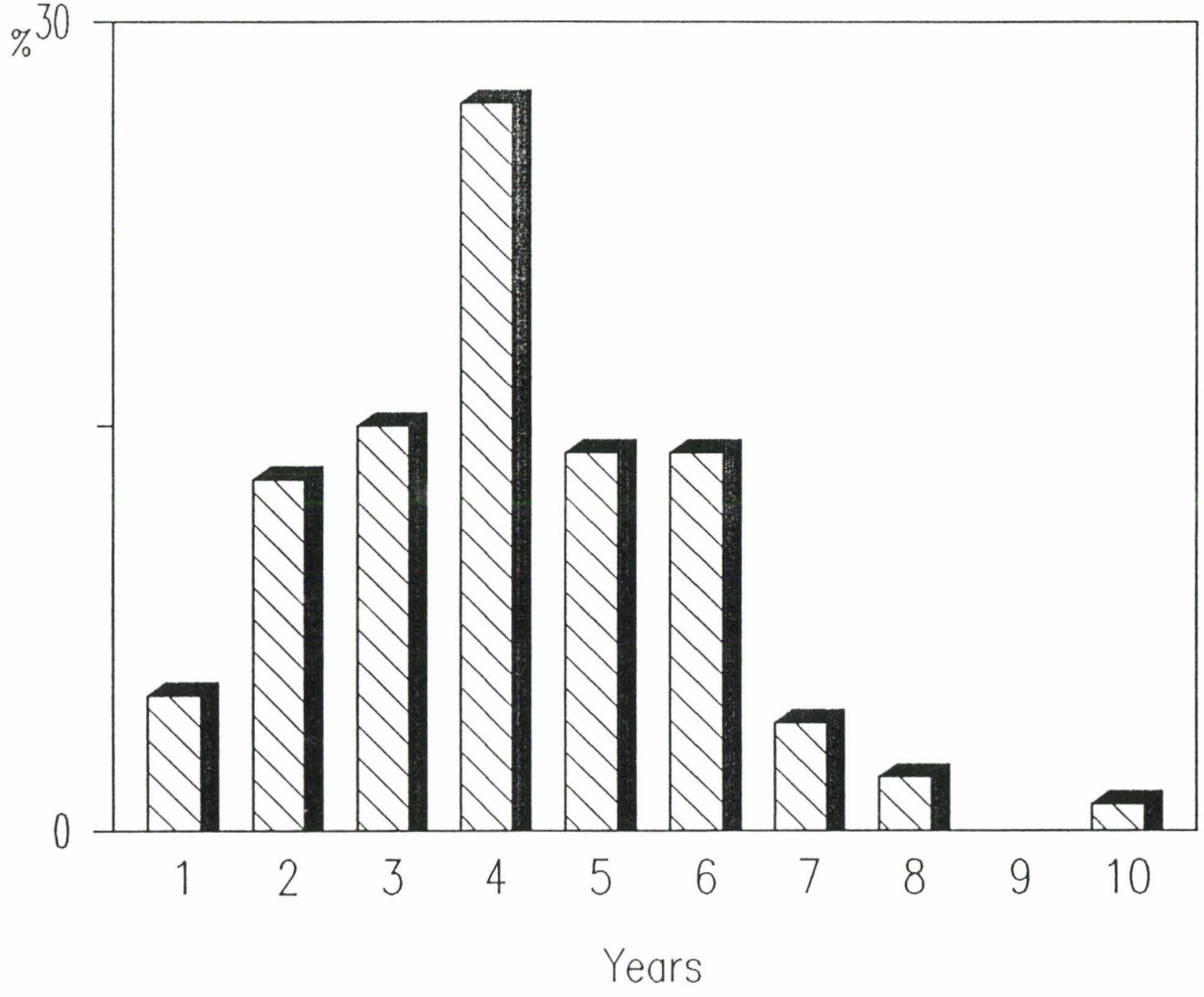


FIGURE 1

Analysis: When developing routes for bicycles, these results must be taken into consideration. The public will only have a quality experience if their expectations are met.

3. While biking on trails, how often do you see hikers?

Response:
- 16%: never
- 38%: rarely
- 35%: sometimes
- 2%: frequently

Analysis: Most hiking trails are currently closed to mountain bikes. This could be a factor in the response to this question. If they are riding illegally, they may be riding on less popular trails because they do not want to get caught or be seen.

4. While biking on trails, how often do you see horseback riders?

Response:
- 24%: never
- 49%: rarely
- 24%: sometimes
- 2%: frequently

Why People Ride Mountain Bikes

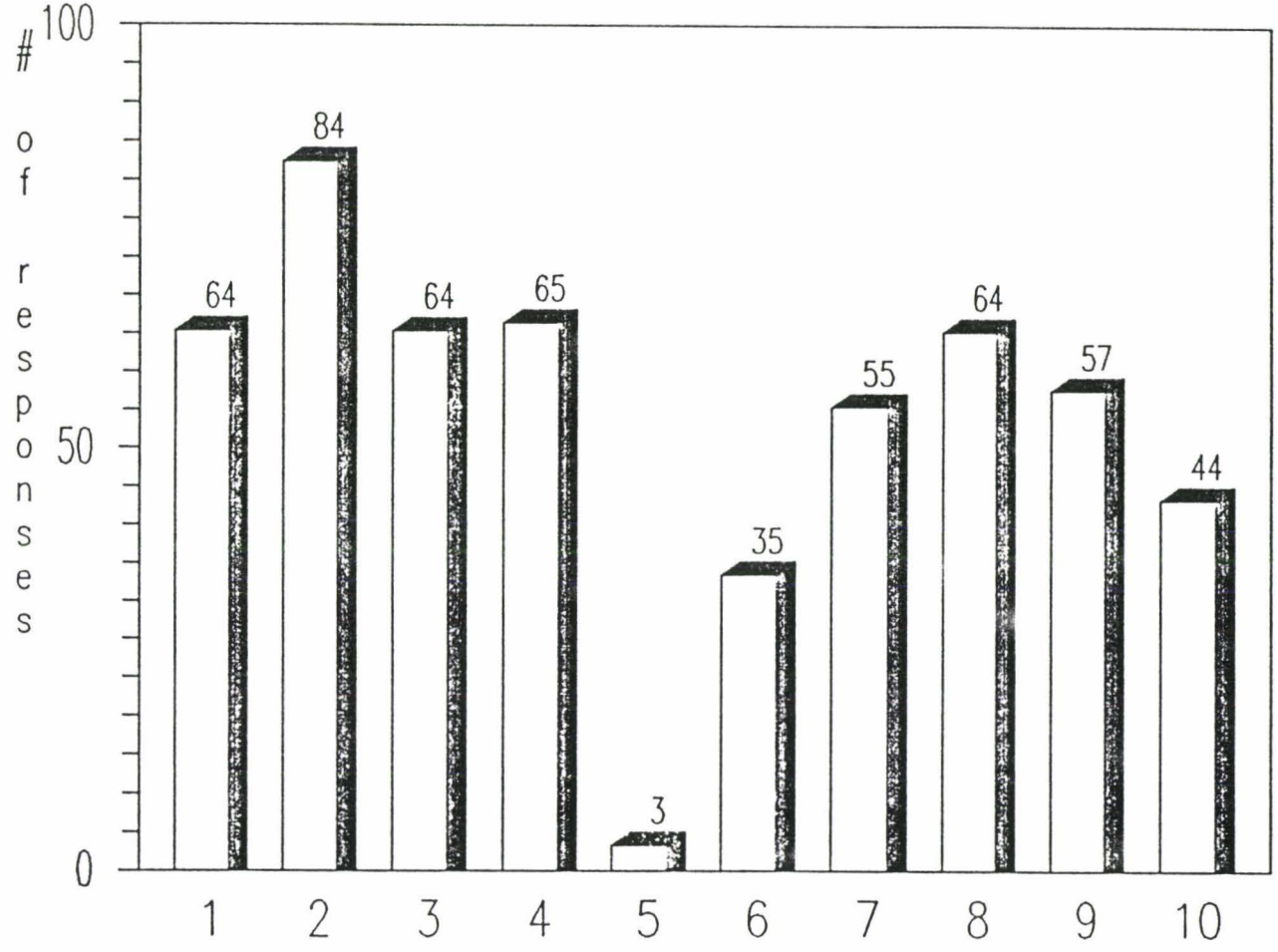


FIGURE 2

LEGEND

1- solitude
2- exercise
3- adventure
4- scenery
5- family
6- group activity
7- nature
8- relieve stress
9- develop skills
10- challenge

Analysis: Most of the trails that horseback riders use are currently closed to mountain bikes. This could be a factor in the response to this question. If they are riding illegally, they may be riding on less popular trails because they do not want to get caught or to be seen.

5. Are you aware of any conflicts between mountain bikes, hikers, and horseback riders?

Response:
- 36%: aware of conflicts with hikers
- 28%: aware of conflicts with horseback riders
- 31%: not aware of any conflicts

Comments:

- I let both know I'm approaching and ask permission to do so.
- Horses do more damage. A few bicyclists ruin it for everyone.
- Trails are exclusive to the packers. Simple courtesy on both sides would diffuse any potential conflict I can imagine.
- There is damage done to the trails by bicyclists.
- Horseback riders are hostile.
- Hikers and horseback riders seem obsessed with keeping bikers out of areas they conceive belong to them.
- The majority of mountain bikers are ignorant.
- A few bad apples stereotype the rest of us.
- Horses are spooky about bikes.

- We need courtesy and moderation on both sides.
- The situation is blown out of proportion.
- Bikes don't belong on hiking trails and wilderness. I don't believe that they can co-exist.
- A few bad apples ruin it for others.
- Trails are closed and bikers don't know or play dumb.
- There's a problem with bikes going too fast.
- Some are unaware of the Wilderness Act; problems in the
- Wilderness.
- There is a problem with speeding drivers on Sawmill Cutoff.
- I have only been aware of problems through public meetings.
- I horseshoe for a living and my clients seem content with bikes.
- I am treated rudely by horseback riders.

Analysis: Thirty-one percent are not aware of any conflicts. This could be attributed to their use being restricted to areas where conflicts won't occur.

6. How many miles do you usually travel on your bicycle when out for one day?

Response:
- 43%: >20 miles
- 41%: 10-20 miles
- 11%: 5-10 miles
- 5%: 1-5 miles

Analysis: In marking any routes on the ground or on a map, the results from this question should be taken into account. There is a need to show routes of 10-20 miles or provide routes at least 20 miles long.

7. Would a handout showing existing trails and containing general information on mountain bike riding be useful to you? If so, please provide a rating of 1-10 on how useful (10 being the highest).

Response: 49%: #10
31%: #5-9
20%: #1-4

Analysis: Forty-nine percent of those surveyed indicated that a handout would be very useful. This supports designing and producing a handout on mountain bike riding.

8. What items would you like to see included on a handout?

Response: There were over 40 different items listed. Following are the items listed, with the first being the largest requested, and the rest being requested less frequently:

-A map of open trails.
-Mountain bike code of ethics.
-Trail system map with difficulty ratings.

-Length of trips/rides.

-Elevation.

-Narrative on the area.

-Rest stops, water, food.

-Closed trails to mountain bikes.

-Type of terrain.

-Map of all dirt roads.

Analysis: All of the above items should be addressed on a handout.

9. Which of the following rides do you usually prefer?

Response: Following are the percentages of the responses for each category:

Loop Rides: 25%

Forest Setting: 20%

Remote Areas: 17%

Open Areas With a View: 12%

Destination Rides: 11%

Along Lakes or Streams: 10%

Loop Rides Using Interconnected Paved and Dirt Roads: 5%

Analysis: When designating routes for mountain bikes, the above information should be taken into account. Twenty-five percent of the riders prefer loop rides.

10. Which of the following terrain do you prefer?

Response: 75%: varied terrain
22%: >20-25 degree slopes
3%: level terrain

Analysis: When designating routes for mountain bikes, the above information should be taken into account. The majority of the riders prefer varied terrain.

11. Do you prefer to ride mainly on trails, dirt roads, or paved roads?

Response: 62%: trails
38%: roads
0%: paved roads

Analysis: When designating routes for mountain bikes, the above information should be taken into account. The majority of the riders prefer trails. There is a need to provide more of the trail ride experience for the mountain bike rider.

12. Would you like to see any bike trails marked so they can be easily followed?

Response: 69%: yes
31%: no

Analysis: The majority of the bicyclists stated that they would like to see trails marked.

13. Do you currently know where you are allowed to ride on Forest Service land?

Response: 67%: yes
33%: no

Analysis: It could be the 33% that do not know where they can ride cause problems by illegally riding, due to ignorance. There may be some riders who know where they can ride, but choose to ride illegally anyway. Out of eight people surveyed on the District, two did not know where they are allowed to ride. Education is needed as to where you may ride mountain bikes.

14. Should closed signs be posted on trails that are closed to mountain bike riding?

Response: 78%: yes
22%: no

Analysis: One person had a suggestion of marking the open trails to prevent vandalism. Currently, the popular illegal trails are signed closed. These signs continue to be vandalized. The signs are costly, being routed out of redwood. A steel sign was installed at the Mammoth Rock Trail, but was stolen.

15. Where do you go for information on mountain bike riding?

Response:
- 37%: friends
- 28%: sporting goods/bike shop
- 26%: Ranger Station
- 9%: bookstore

Analysis: Information on mountain bike riding should be available at Ranger Stations and at local sporting goods/bike shops.

16. If you have bicycled in the Mammoth Lakes area, where do you usually ride?

Response: Over 20 different locations were listed. In order of preference, the most popular were the Lakes Basin, Mammoth Mtn. and vicinity, Inyo Craters, and Shady Rest.

Analysis: The Lakes Basin was the most popular area, however only two trails are open to mountain bike riding for a total of four miles. Many of the trails in this area lead into the wilderness. The above

areas will be taken into account when recommending routes. Under comments, quite a few people mentioned that they would like to see the Mammoth Rock Trail opened to mountain bike riding. There has been a request by other members of the community to open up this trail.

5.) EDUCATION OPTIONS

Following are a variety of options that are available for mountain bike riding education. These options were identified through research and the survey results.

Television

Mammoth Lakes has a population of 5,000. This can grow to over 20,000 during the busy tourist seasons. Many of the visitors stay in condominiums that have TV cable service. These people can be reached by public service messages on the local stations. The form of a public service announcement can range anywhere from a simple statement read on the radio to a professionally produced televisions spot (Goldstein, 1987). Television can be used to show a video or a simple message.

Handouts

Handouts can range from a simple xeroxed sheet with information and a map, to a professional printed brochure. Many different agencies are producing handouts. A simple handout was designed on mountain bike

riding in 1986 and given to bicyclists at the Mammoth Ranger District. The handout contained some incorrect information. As a result, it was removed until it could be corrected. During the summer of 1989, a handout was designed for bicycling the Shady Rest/Inyo Craters area. It lists routes and assigns degrees of difficulty to them. This handout does not list where riding is allowed and not allowed.

Press Releases

Press releases can be used to reach the local community and communities that visit the area regularly. Releases can be submitted to newspapers and bicycling publications. The IMBA newsletter is published by locals Don and Reanne Douglass. If one wants to insure that an article is printed, it should be submitted as a paid advertisement.

In-School Bicycling Education Programs

In-school cycling education programs are fairly common in many school districts already. Their format is normally that of a special presentation by a visitor. The present focus of these programs is on safe riding on pavement and in traffic, to which could be added a section on safe and responsible mountain bike riding (Goldstein, 1987).

Information Signs

All campgrounds on the Mammoth Ranger District have an information board at the entrance to each campground. The opportunity exists to design an information sign on mountain bike riding that could be posted on the board. A box could be attached that would hold maps. The sign could also be displayed at local bicycle shops and other locations that bicyclists visit.

Dealer Education

By educating the mountain bike dealers on mountain bike ethics and other issues, the word can be passed on to the buyers of their products. Specialized Bicycle Components instituted a water bottle program to raise funds for land access and to educate customers and the public about responsible riding. Specialized donates $.50 to the Mountain Bike Task Force for each bottle sold. Specialized believes that the most important contribution a bicycle dealer can make is to educate each of its customers about the mountain bike situation and to teach them about trail etiquette.

TRAIL USE AND SIGNING OPTIONS

The mere existence of rules in parklands is contradictory to the sense of freedom inherent in recreation (Lucas, 1982). Keeping this in mind, it is imperative that as positive a message be used as

possible. This can help alleviate the problem of vandalized signs. Signs can be costly and require manpower to maintain. Too many signs can impose a cluttered, negative atmosphere. As a result, signing should be kept at a minimum.

Types of Signs

There are different types of signs that can be used for mountain bike use. Carsonite in Nevada offers a brown tread lightly sign that explains the types of travel permitted and the dates permitted, followed by any travel restrictions and the reasons for them. A message decal is available that says "To Reduce Conflicts Between Users". Carsonite also offers 3" x 3" decals and impact resistant signs in 8" x 8" with the recreational symbol of a bicycle. The symbol is also available with a red slash indicating the activity is prohibited.

George Geer of the Arroyo Seco District on the Angeles Forest designed a trail courtesy sign that can be used on trails that bicyclists, hikers, and horseback riders use. The sign is very positive and informative. Currently, Mammoth Ranger District does not have any trails that are used heavily by all users which are open to mountain bikes. George also designed a sign that emphasizes that the mountain bike rider be a part of the solution, not a part of the problem. See appendix G.

Methods of Signing

Signing only open bicycle trails would eliminate the problem of vandalized signs. For this system to work, it is important that the mountain bike rider know that only trails signed "open" may be used.

The method of signing used for the 1977 Interagency Motor Vehicle Use Plan for the Forest is that all existing roads and Off Highway Vehicle trails are open unless signed closed. There are numerous trails that are closed to mountain bikes on the District. This method would require all of these trails to be signed.

Signing the trails that lead into the wilderness lets the mountain bike rider know where he may not ride before he commits an illegal act. It is a preventive measure and should be used on trails that are most likely to have problems. In 1985 the Mammoth Ranger District installed signs on the trails leading into the wilderness. The signs are made out of redwood and the message, "Motor Vehicles and Bicycles Prohibited", is routed on the sign. This method is pleasing to the eye, but negative in tone.

Signing closed trails and open trails would tell the mountain bike rider where they may and may not ride bicycles. Illegal mountain bike riders would not be able to say that they did not know they could not ride on a specific trail. On the Mammoth Ranger District there are many fishermen's trails that could not be signed closed. Too many

signs would be required to accomplish this task. If a specific trail became a problem, signing could be added. A simple 8" x 8" bicyle symbol with a slash through it could be attached to a post and installed.

No signing would require the mountain bike user to find out about where he/she may ride through other means. Ignorance could be claimed when encountered by an officer when illegally riding.

Some mountain bike riders prefer to follow a marked mountain bike trail. Carsonite offers a trail marker that has the bicyle symbol decal on it. These markers can be used to designate a specific route that can be easily followed.

Providing Trail Opportunities

Time exclusions prohibiting bicycling could be set up for particular hours of the day, days of the week, or months of the year. These could be determined by the demand for trail use (Golstein, 1987). Proper signing explaining the season of use is crucial for this to work. This method gives all users a period of time when they can use a specific trail.

Involving mountain bike riders in trail building and maintenance would give them an understanding of the impacts from mountain bikes on trails. There are many groups that have gotten together to help in any way they can. At Crystal Cove State Park in California a group

was formed called SHARE (Concerned Cyclists of Crystal Cove). They work on trails and educate the local community on mountain bike ethics. At Lake Tahoe a group called TAMBA performs similiar tasks. Don Douglass of IMBA thinks that we could work together to form a group to build a trail for mountain bikes in the Mammoth Lakes area. The ideal situation is to involve hikers, horseback riders, and mountain bike riders on a trail building project. The various users can then see mountain bike riders as responsible recreationists.

Another possibility is to open more trails to mountain bikes. A study would need to be done to determine which trails to open. Public meetings with pack station permittees, horseback riders, and hikers should be held. Perhaps a few trails could be opened and then monitored for problems.

6.) DISCUSSION

Existing Management Direction

In the Environmental Assessment for all terrain bicycling for the Mammoth Ranger District the selected alternative included mitigation measures. Those measures were:

a. Signing will be required on all open and closed trails currently being used by ATB'S.

b. Public information will be provided to better inform bicycle riders where they may and may not ride.

c. All trails leading into wilderness areas will be signed "Motor Vehicles and Bicycles Prohibited".

The wilderness trails were signed "Motor Vehicles and Bicycles Prohibited". The signs are 1 ft. x 2 ft. redwood with the message routed. Signing was not completed on all open and closed trails currently used by ATB'S. Handouts on mountain bike riding need to be rewritten to include current information on the sport.

Discussions with other Managers

Richard Spray (1988), retired Asst. Director of Wilderness and Recreation Management in Region 3, explained that to do anything with the issue of mountain bike riding will be effective. Working with local clubs works the best, providing them ownership in the solution.

Larry Thenagt (1988), Recreation Officer for Fishlake National Forest, stated that when developing a handout for mountain bikes you must show opportunities. After a brochure was completed for Fishlake N.F., the one critisism received was that there should have been more information on mountain bike ethics.

George Geer (1988), Area Manager on the Angeles National Forest, has been working with the mountain biking community for quite a few

years. He explained that prevention of a problem should always come first, with enforcement coming last. He has coordinated local mountain bike riders to patrol problem areas and hand out information sheets to users. He has designed signs for mountain bike trails. All of his actions seem to be having a positive effect on the mountain bike situation.

Ted Reinhart (1988), Chief Ranger with the Lake Tahoe State Parks, stated that there are no major problems with mountain bike riding in their park. There are numerous fire roads and trails that are open to bicycles.

Paul Sullivan (1988), with the Ambassador College in Pasadena, Ca., stated that the most important aspect of mountain biking that should be stressed from an educational perspective is not skills, as one would expect, but responsibility and respect for recreational resources and other trail/road users. Paul teaches a class called All-Terrain Cycling. Course goals are:

1. Introduce the nature of all-terrain bicycles and their components, their impact on the environment and proper trail etiquette and courtesies.

2. Teach fundamentals of proper all-terrain bicycle frame size and seat height fit.

3. Develop effective use of gears and brakes on all types of terrains.

4. Develop safe riding skills at various speeds and maneuvering around road/trail obstacles with other riders/user in area.

5. Develop communication with, and encourage others in, the class.

6. Develop a love of all-terrain bicycling and pursue as a lifetime fitness sport.

Current Situation

Bicycling in America is changing rapidly. "Until very recently, the bicycle of choice was the sleek 10-speed racer. But with it's uncomfortable drop handlebars and thin tires, it was wrong for most people", said Bill Wilkinson, executive director of the Washington-based bicycle federation of America. The so-called mountain bike is everybody's bike. Within five years this is what the majority of Americans will be riding (Reinhold, 1987).

The mountain bike research and the survey indicated that mountain bike riding is a controversial subject in many areas. In obtaining information pertinent for developing an educational plan on mountain bike riding, certain issues arose that pertain to mountain bike riding. Those issues were addressed, including signing and trail

riding. Signing is an important part of the education plan. The general consensus of managers who deal with mountain bike riding, was that education is of primary importance. The District has installed signs in problem areas, however the method used needs to be evaluated. In order to educate the public on resource damage, trail etiquette, safety measures, and trail riding, education must be expanded.

RECOMMENDATIONS

To alleviate some of the problems that were identified, education is the key. In considering all the options, the following are recommendations to provide a better understanding of mountain bike riding and the issues and concerns associated with the sport:

1. Implement an educational plan that includes the following:

    a. Follow the marketing outline shown in Appendix I.

    b. Produce a handout/brochure on mountain bike riding that includes the ten items that the public requested be on a handout. See #8 of the analysis of the survey data.

    c. Produce a video on mountain bike riding that would be shown on the local Channel 5 TV station. Winn Thompson of Channel 12 in Bishop has agreed to do an interview with the Forest Service and Don Douglass this summer. The interview would be

on mountain bike riding information, including where to ride and riding ethics. See Appendix J for proposed text.

d. Channel 5 has a message channel that is used for advertising and various other messages. There is no charge for messages for non-profit organizations. The IMBA Rules of the Trail would be added to this channel with the Title "Welcome Mountain Bike Enthusiasts to the Inyo National Forest! While bicycling in the area, please remember the International Mountain Bicycling Association's Rules of the Trail." The code would follow. Then "Please stop by your nearest Ranger Station for information on where to ride."

e. A sign with general information on mountain bike riding should be installed on the campground information boards, at local sporting goods/mountain bike shops, the local bookstore, Mammoth Mtn. Inn, and the Mammoth Visitor Center/Ranger Station. This sign would have a box to put the information handouts in. See appendix K.

f. A news release on mountain bikes riding would go into the local newspapers once a month from May-October.

g. Don Douglass attends a National Bicycle Dealer's Association trade show in Anaheim, Ca. each fall. He has agreed to share a booth with the Forest Service. This is a great opportunity to communicate our concerns on mountain bike riding with

dealers. The dealers can then communicate the same information to mountain bike riders all over California.

h. Write to companies that are involved with mountain bicycle gear and ask them to include IMBA's Rules of the Trail with equipment. Specialized has published handouts and a mountain bike land access guide for dealers and the public.

i. Contact the local bike/sporting goods shops that sell bicycles and inform them of Specialized's waterbottle program. Explain the importance of the Rules of the Trail that is printed on the bottle. Try to persuade them to sell the bottle at their stores.

j. I recommend that the signing symbols be as consistent as possible throughout the Forest Service. The Arroyo Seco District has designed several signs that are excellent for eliminating problems. Signing is included in appendix G & H.

k. Sign all wilderness trailheads and open trails with the Carsonite Information Sign. Currently the wilderness trailheads have redwood signs. As the signs need replacement use the Carsonite sign.

2. I recommend that a selected mountain bike route be marked on the ground so it can be easily followed. The proposed route and method of marking are found in appendix E. The success of the

route should be evaluated after a season of use, and recommendations for marking other trails made at that time.

3. I propose that the blue diamond trails in the Lakes Basin be opened to mountain bike riding when the Mammoth Lakes Pack Outfit is not in operation. This would allow mountain bike riding during the month of October and the first two weeks of June. Signing these trails as to this time period would be crucial. See appendix F.

4. Most of the public indicated that they preferred to ride their mountain bikes on trails. I recommend that the District work with the Town of Mammoth Lakes, Mammoth Mountain Ski Area, IMBA, and the community to provide more trails that mountain bikes may use. In the Decision Notice for the Environmental Assessment for All Terrain Bicycles, a trail leading from Laurel Mine Rd. connecting to the Valentine Trail was proposed to be constructed. Don Douglass has agreed to help provide manpower for this project. I recommend that an Environmental Assessment be written for this proposal. See Appendix B.

The Mammoth Rock Trail should be opened to mountain bikes. This trail is a front country trail and does not lead into the wilderness. It was closed in 1986 because of horseback riders that use the trail. The trail is located near the Sierra Meadows Equestrian Center. However, in the last few years it has been noticed that horses are rarely on the trail. Four people wrote on

their survey form that they would like to see Mammoth Rock trail opened. The Town of Mammoth Lakes supports opening the trail to mountain bikes. Scott Christensen is on the Parks and Recreation Commission and wrote a letter in 1986 asking that the Mammoth Rock Trail remain open. If the trail is opened it should be signed with the Courtesy Sign that George Geer designed. The Forest Service should meet with the Sierra Meadows Permittee to receive their input and help with any concerns they might have.

5. Use the ROS system for integrating mountain bike riding into management planning. If a bicycle trail plan is developed for the District, the ROS system will provide the necessary qualifiers for the different settings and types of experiences that are desired.

CONCLUSION

The All American Experience: As I said in the beginning, I believe that the Forest Service is providing an "all-American experience: in outdoor recreation on the National Forests. Every one of the people who comes to the National Forests for outdoor recreation is really important!"

It's not fair to cut out any of them, so long as their use can be accommodated in an environmentally sensitive way and made compatible with other uses--and that's especially so when you get down to local use.

Our aim is to serve all of the people, and to work out the conflicts among users where that becomes necessary (Robertson, 1989).

Many of the problems that exist with mountain bike riding are a result of the public not being informed on the issues related to the activity. The most useful tool in resolving some of the problems is education. There will always be conflicts between different users on public land. This conflict must be understood and managed. Mountain bike riding is on the upswing and will probably stay that way. Mammoth Mtn. Ski Area is proposing to open a Mountain Bike Park during the summer season. There is talk of having the gondola take bicycles to the top of the mountain. Riders could then descend the mountain on

various different courses. If this proposal becomes reality, Mammoth Lakes Ranger District will see mountain bike use on the District grow in even larger leaps and bounds.

To prevent problems, trails should be signed for mountain bike use. Working with groups to develop more trails would bring people together for a common purpose. At the Mammoth Ranger District, the growth of the sport is evident. A bicycle rack for employees is located outside the employee entrance to the District. This past summer the rack was completely full, forcing employees to lock bicycles to nearby trees. The public who happened to walk by thought the Forest Service was renting bicycles. In Marin County, Ca., the Marin Municipal Water District uses radar guns to enforce the 15 mph speed limit. Gibson Ander, director for Responsible Organized Mountain Pedalers (ROMP), would rather radar guns be used than have the land closed to mountain bikes (Hinge, 1989).

I have been riding mountain bikes for over five years. Like many of the people surveyed, I enjoy the sport for many different reasons. Many of the survey forms that were returned included thank you's. Ten of the people surveyed offered to help if a trail is to be built in the future. The public wants to be involved and is happy to give its input on the mountain bike issue. Ralph Waldo Emerson once said, "Our best thoughts come from others".

During my research on mountain bike riding, I obtained valuable information from a variety of sources. I have included examples of

brochures and signs so other managers can use this information. I hope that this education plan will provide the information necessary to help alleviate some of the problems that were discussed.

The only way you can expect someone to understand your point of view is to provide them with the substance from which your outlook was developed. Essentially then, the task is education and not argumentation (Cohen, 1980).

Bibliography

Bird, Jerry. 1989. "Marketing in the Public Sector." Paper by Jerry Bird, Planning Assistant, Selway Ranger District, Nez Perce National Forest.

Cohen, Herb. 1980. You can Negotiate Anything. Bantam Books, Inc., 666 Fifth Avenue, New York 10103

Cverdon, Don. 1988. "Sport Swapping." Mountain Bike Magazine. May/June.

Douglass, Don & Reanne. 1987. Mountain Biking the High Sierra. Fine Edge Productions, Route 2, Box 303, Bishop, CA 93514.

Driver, B. L. 1985. "Basic Concepts & Use in Land Management Planning." Script for videotape on the Recreation Opportunity Spectrum. p.6.

Foote, Jennifer. 1987. "Two-Wheel Terrors- Mountain Bikes, Clunky but Chic, Rule the Road." Newsweek. September p. 72.

Goldstein, Stephen. 1987. "Mountain Bikes and the Parks- Mitigation of Safety and User Conflict Problems." Thesis Paper, University of California- Santa Cruz. December. pp. 11-16 and pg. 28.

Grost, Richard T. 1989. "Managing the Mountain Bike." American Forests. March/April. p. 75.

Hasenauer, Jim. 1989. "Don't Amend the Wilderness Act!" International Mountain Bike Association- Land Access Alert. November. p. 5.

Jacob, Gerald. 1977. "Conflict in Outdoor Recreation: The Search for Understanding." Paper in the Utah State Tourism and Recreation Review. October. pp. 2-3.

Lewis, Franklin A.L. 1989. "A Process to Develop a National Forest Recreation Marketing Plan." Clemson paper by Franklin Lewis, District Ranger, Hector, Arkansas. April. pp. 49-54.

Lucas, Robert C. 1982. "Recreation Regulations- When are They Needed?" Journal of Forestry. March. p. 80.

McLellan, Gina. 1989. Lecture given at Clemson Recreation Short Course. September.

McHugh, Paul. 1987. "High Country Cycling." San Francisco Chronicle. June.

Reihart, Ted. 1988. Conversation with Ted Reinhart, Chief Ranger with the Lake Tahoe State Parks, Lake Tahoe, CA. December 7.

Reinhold, Robert. 1987. "Trendy Mountain Bikes Pose Unexpected Threat

to Wilderness Trails." New York Times- Ideas and Trends. November.

Rose, Laura. 1990. Conversation with Laura Rose, a member of the Anonymous Bicycle Club (ABC) of Sacramento, Ca. December 7.

Spray, Richard. 1988. Conversation with Richard Spray, Retired Assistant Director for Recreation and Wilderness, Southwestern Region, Forest Service, Albuquerque, New Mexico, December 7.

Spray, Richard & Efird, Thomas. 1988. "Internal Barriers to Marketing." A Report. May. p. 1.

Syme, John. 1988. "Selling vs. Marketing, is There a Difference?" A paper by John Syme, Department of Forestry, Clemson University. July. p. 3.

Sullivan, Paul. 1988. Conversation with Paul Sullivan, Instructor at Ambassador College, Pasadena, Ca. December 14.

Thenagt, Larry. 1989. Conversation with Larry Thenagt, Recreation Officer, Fishlake National Forest, Intermountain Region, Richfield, Utah. January 15.

U.S. Department of Agriculture. 1986. Environmental Assessment for All Terrain Bicycle Plan. August. p 3.

Van der Plas, Rob. 1989. The Mountain Bike Book. Bicycle Books, Inc., P.O. Box 2038, Mill Valley, CA. 95941. p. 92.

Vetter, Don. 1989. "Trails Still Open for Bikers." Reno Gazette Journal. September. p. 3B.

APPENDIX

A- Survey Questionaire and Comments

B- Proposed Trail from Laurel Mine Road to the Valentine Lake Trail

C- Placement of Tread Lightly Signs Showing Open to Bicycles

D- Placement of Tread Lightly Signs Showing Closed to Bicycles and Placement of Tread Lightly Signs as Redwood Signs need Replacement

E- Proposed Marked Bicycle Trail

F- Mammoth Lakes Pack Outfit's Horse Trails and Sign Placement

G- It's Your Choice Sign

H- Trail Courtesy Sign

I- Marketing Action Plan

J- Text for Interview/Video

K- Design for Mountain Bike Sign

APPENDIX A

December 11, 1989

Dear Bicycle Enthusiast:

Attached is a survey on mountain bike riding. Please fill out both sides of the form and return to me by January 5th. Also attached is a self-addressed stamped envelope for your convenience.

I will be using this survey to write an educational plan on mountain bike riding. In the plan, I would like to recognize the mountain bike user's perspective on the subject. In order to adequately do this, your input is crucial. The information received will be used in preparing educational materials on mountain bike riding.

Thank you so much for your cooperation!

Sincerely,

Janis Lloyd

JANIS LLOYD

APPENDIX A

MOUNTAIN BIKE SURVEY

Conducted by the Department of Parks, Recreation and Tourism Management
Clemson University
In Cooperation with the United States Forest Service/Mammoth Ranger District

---

How long have you been riding mountain bikes?

First Year_____ Years_____

People have different reasons why they ride mountain bikes. Listed below are some possible reasons. Please put a check by each space that describes why you enjoy riding:

For the solitude_____ Family Togetherness_____ Challenge_____

Exercise/Fitness_____ Group Activity_____ Relieve Stress_____

Adventure_____ Be Close to Nature_____ Develop My Skills_____

Viewing Scenery_____ Other (Please Write In)_____

While biking on trails, how often do you see hikers?

Frequently_____ Sometimes_____ Rarely_____ Never_____

While biking on trails, how often do you see horseback riders?

Frequently_____ Sometimes_____ Rarely_____ Never_____

Are you aware of any conflicts between mountain bikers, hikers, and horseback riders or others? If so, please explain.

_____
_____
_____

How many miles do you usually travel on your bicycle when out for 1 day?

1-5_____ 5-10_____ 10-20_____ >20_____

Would a handout showing existing trails and containing general information on mountain bike riding be useful to you? If so, please provide a rating of 1-10 on how useful. _____

What items would you like to see included on a handout? Please list.

1._____
2._____
3._____
4._____

APPENDIX A

Which of the following rides do you usually prefer? Select the 3 most important to you.

Loop Rides_____ Destination Rides_____ Along Lakes or Streams_____

Open Area With a View_____ Remote Areas_____ Forest Setting_____

Loop Rides Using Interconnected Paved and Dirt Roads_____

Other (Please Write In)_____

Which of the following terrain do you prefer?

Varied Terrain_____ Level Terrain_____

Over Half of the Terrain With 20-25 Degree Slopes_____

Do you prefer to ride mainly on: (check the one that applies)

trails_____ dirt roads_____ paved roads_____

Would you like to see any bike trails marked so they can be easily followed?

Yes_____ No_____

Do you currently know where you are allowed to ride on Forest Service land?

Yes_____ No_____

Should closed signs be posted on trails that are closed to mountain bike riding?

Yes_____ No_____

Where do you go for information on mountain bike riding? Circle those that apply.

1. Ranger Station 2. Sporting Goods Store/Bike Shop 3. Bookstore

4. Friends 5. Other (Please Write In)_____ 6. No Location

If you have bicycled in the Mammoth Lakes area, please write in where you usually ride. If you have any thoughts and ideas on mountain bike riding, please feel free to comment:_____

THANK YOU FOR YOUR COOPERATION

APPENDIX A

SURVEY COMMENTS

- More frequent patrols.

- Gradual resource damage.

- I am against bikes in the wilderness or front country trails that are already closed. Two of my pet peeve areas are, Crystal Lake Trail and Emerald Sky Trail.

- Could use trails constructed to make roads into good loop rides.

- Bikes don't belong in the wilderness; otherwise use on trails is fully legitimate.

- The problem with irresponsible riders is one of law enforcement and education.

- Use mixed or multiple use of trails; use blue diamond trails.

- I hope the Forest Service will continue to keep trails open to mountain bikes.

- We need more knowledge of resource damage.

- I wish I started riding before trails were closed.

- I am glad to be a part of the problem, but proud to be a part of the cure.

- There is a growing popularity of mountain bikes.

- A handout should be family oriented. Also, mountain bikes do no more damage than horses. It's time for a new comprehensive management plan for mountain bikes, horses, and hikers.

- Mountain bike riding is good for the health.

- Public opinion is easily swayed giving bicyclists a bad rap.

- People should use more self control and respect others and the environment.

- More guide services.

- So far mountain bikes have had almost no support from public officials. This is a typical or traditional Forest Service response. Cut trees for loggers, overgraze the grasslands and damn the public. Our lands must be better and more everly managed. The Sierra Club is wrong as well. These are public lands and while they should be preserved, they should be more accessible not just to a few elitists.

- Riding on maintained dirt roads gets old quick. You ought to open all front country trails to bikes. Bikes have less impacts than horses and I don't see any conflict of use. More people are biking these days than horseriding- open it up. Nail people for wilderness riding. The Mt. Hood Forest Service encourages riding. Check with their policies.

- A Mammoth area trail guide would be nice.

- More enforcement is needed to keep mountain bikers out of the wilderness.

- With proper organization, Mammoth could become a true bike destination such as Crested Butte, Colorado and Moab, Utah.

- Open more trails! Bike riders do not cut switchbacks like hikers. They have less impact than horses.

- We (mountain bike riders) have to make unify with the other people who use and enjoy the outdoor trails and roads. We have to pursue a positive image on mountain bike riding.

- My son, 27, and I both enjoy mountain biking very much. We try to be courteous to all trail and backroad uses and feel an education process to help non-bikers understand that we can enjoy the trails

and forests without personal chagrin is not only possible but imperative.

- Many are taking the road riding practice of group rides to the trails and in a majority of areas, it just isn't cool. People buy a bike in the city, go to the Forest and without knowledge of trail etiquette, go riding and trashing. Also, most people don't understand the need for spare tubes, basic tools, and proper clothing.

- I love mountain biking! I also respect our land. I hope everyone who wants to ride can do so safely and with respect for the land, and other users will be able to ride where they can with due consideration with all concerned.

- The best riding I ever experienced was at the world championships at Mammoth. I hope this survey will open new areas for mountain bikers to ride. I believe most people involved in this sport respect nature, and are willing to do their best to keep it natural.

- I would like to see more trails in the June Lake area.

- I would like to see the Mammoth Rock trail reopened to mountain bikes.

- You need to post "watch for horses" speed control signs without overuse of closed signs. Need to develop appropriate graphics for such a sign (pictorals). If too many trails are closed without the biker's perception of environmental damage or immorality due to trail biking, disregard for law if formed and biker attitudes result which can cause friction with authority and trail users.

- I feel that mountain bikers who care, do less damage than horses and careless hikers who don't pack out what they pack in. And you can walk behind a biker, not a horse!

- Along with putting together trail maps for the Mammoth area, a better service could be accomplished by also including rides in Bishop, ie. Sierras and the White Mountains, Crowley Lake area, and June Lake (Deadman's).

- The area between Mammoth Mountain and June Mountain is an ideal mountain bike area. There would be very little contact with hikers or horses and area has varied terrain. By connecting some of the existing slash roads and trails you could create a fantastic riding area. Most of these trails could be used by cross country skiers in the winter.

- I think that the Mammoth Rock trail should be open to riding legally, along with other trails in the Lakes Basin.

- Trails are closed on the Mammoth-Ranger District. This decision was made with little research and analysis and at the urging of an influential economic interest- horsepackers. I believe trails should be open to all forms of pedstrian travel as long as there is no substantial environmental or aesthetic impact. However, mountain bikes and horses do not mix. Trails should be designated for one or the other. Two popular Mammoth trails, Sherwin Lakes and Mammoth Rock, should be open to horses and mountain bikes on a rotational basis.

- Roads for bikes only, for those who like pavement. Why not close the "escape" route and open it for bicycle traffic only. Use it for it's real use. If needed, open gate for vehicle escape only.

- I have found Mammoth Mountain and surrounding areas to be very hospitable to mountain cyclists. Although mosts of my riding has been on Mammoth Mountain, I have done some riding in the surrounding National Forest area.

- Need to expand CORBA and it's philosophy. We could have hundreds of more members and many more in the NPS MBV.

- Although I have riden on many tails in Mammoth, I am told that they are illegal. I truly feel that hikers, horses, and bikes can and should share the same trails. Mammoth Lakes, Inyo and Mono Counties have fantastic areas which should be opened up to bikes. My friends and I are all avid fishermen, hunters, hikers, skiers,

and bikers. If there weren't just one or two, but many trails available to bikes, myself and many others would frequent Mammoth much more. As it is right now, we only come to Mammoth once a year with our bikes for the race. If we had trails to ride on, we'd be in the area much more.

- I feel if a trail is open to mountain biking, horseback and hiking, the primary user or designated user should clearly give full right of way of the trail.

- I'm glad you're doing this kind of a survey.

- A most important thing is to help kids have something to do and keep their interest. Closing trails doesn't help--does it?

- Maps should be small enough to fit in a handlebar map case.

- Mountain biking is an economical recreation. Therefore demand for trails will be increasing. Mountain biking allows you to see more territory. Vacationers have limited time. Therefore, as more hikers discover mountain biking, they will wish to be allowed on trails as mountain bikers. Then they can maximize their experience in limited time constraints.

- I feel that they only way to keep our trails is to ban together and work for our trails to prove to people we want more than to thrash areas.

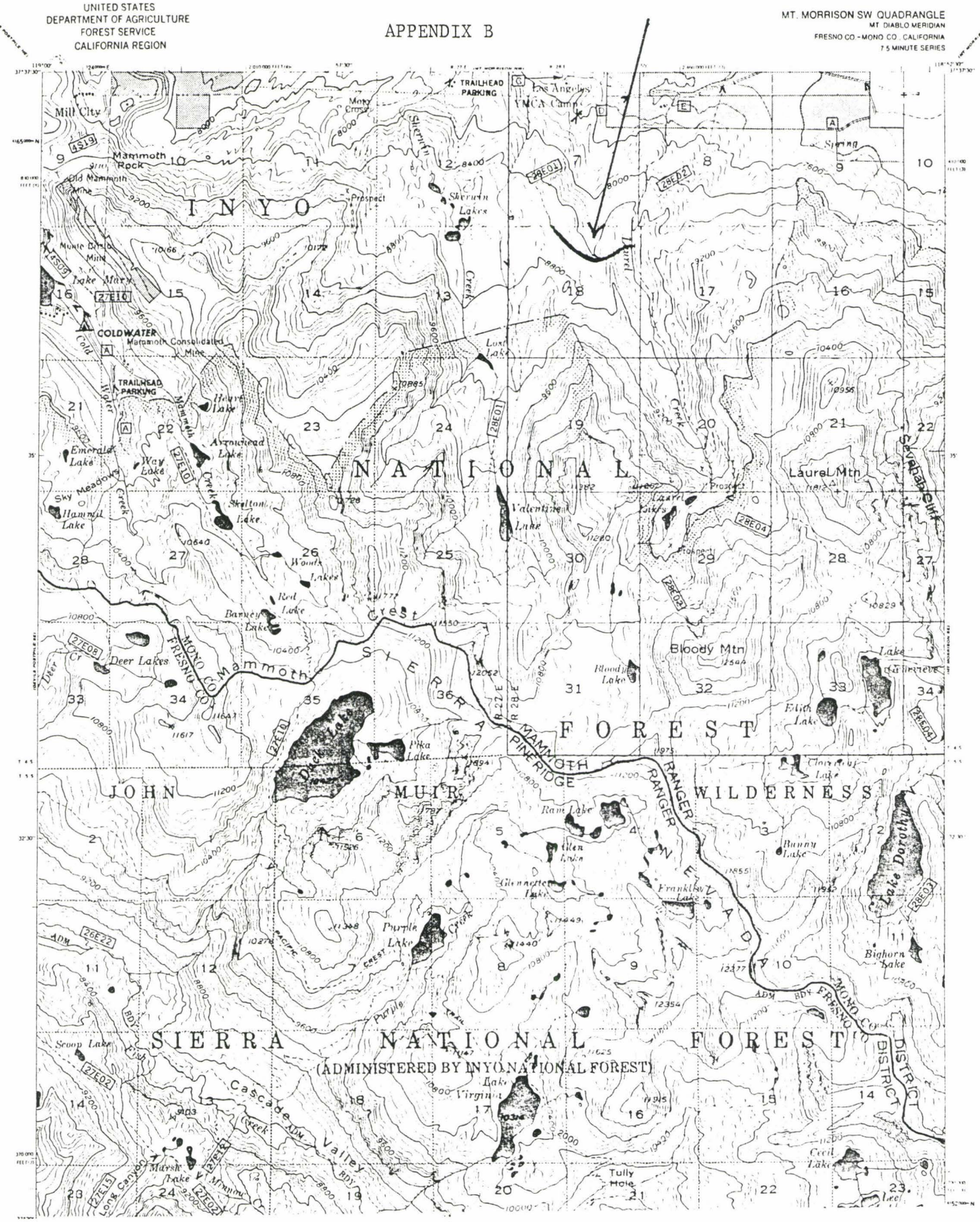
- Knowing which trails to ride on would be a great help.

- Mammoth Rock trail should be opened to all users. With proper signing, educating all to multi-use trail, it would work. We need more single track experience so people will stay out of the backcountry. More front country single track needed badly.

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
CALIFORNIA REGION

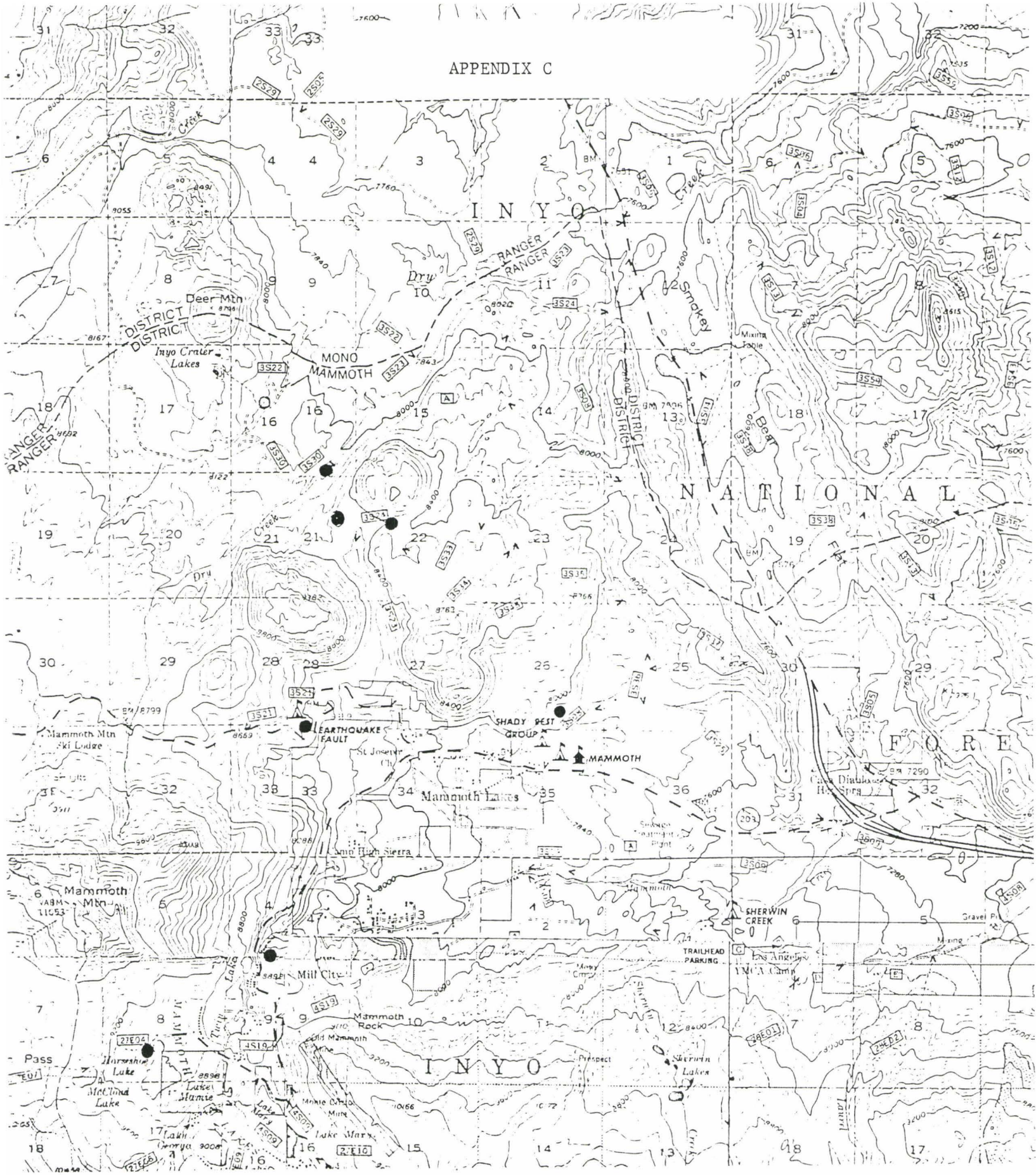
APPENDIX B

MT. MORRISON SW QUADRANGLE
MT. DIABLO MERIDIAN
FRESNO CO. - MONO CO., CALIFORNIA
7.5 MINUTE SERIES



LEGEND

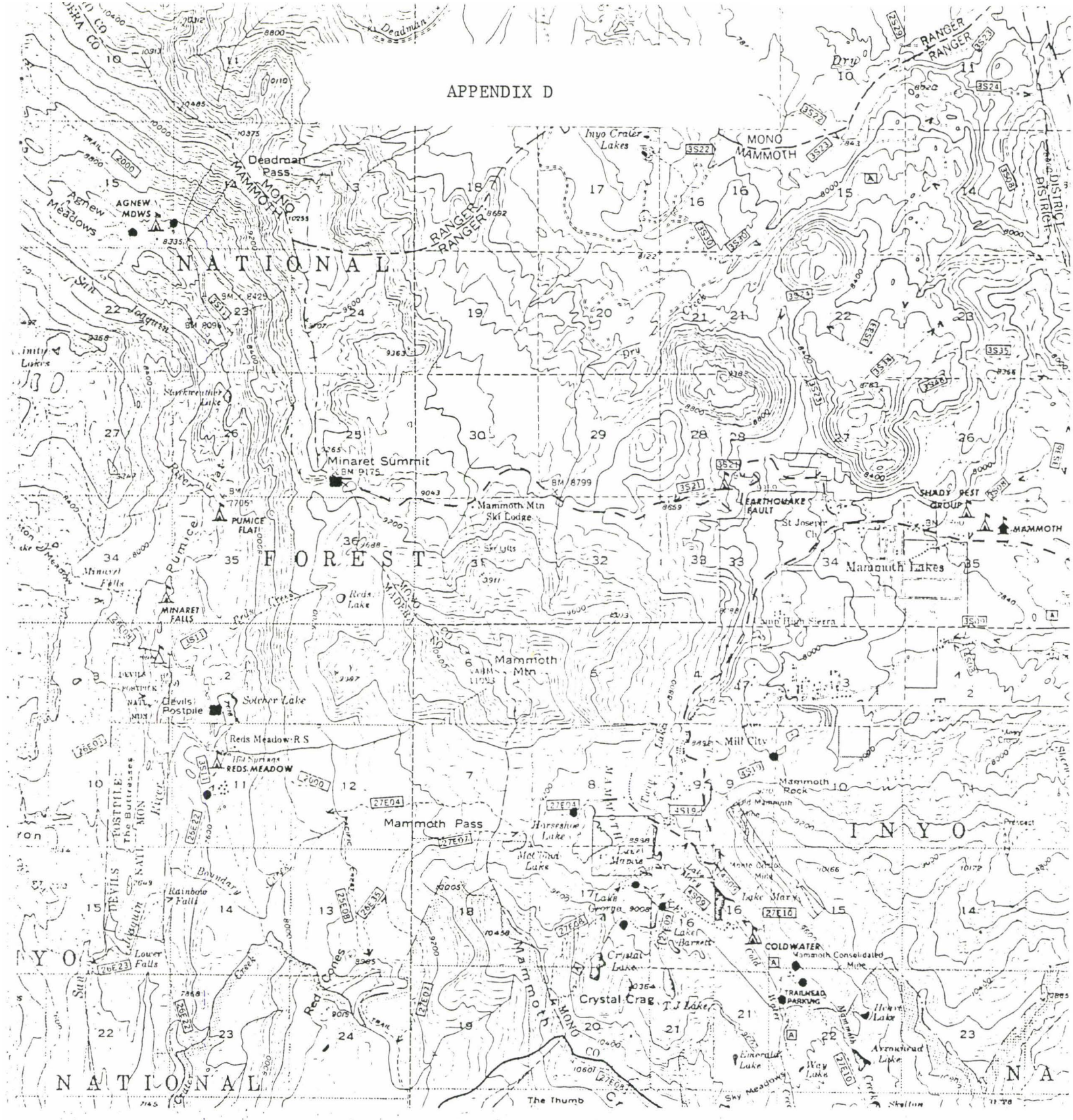
PROPOSED TRAIL TO BE BUILT GOING FROM LAUREL MINE RD. CONNECTING TO THE VALENTINE LK. TRAIL ——



LEGEND

PLACEMENT OF TREAD LIGHTLY SIGNS SHOWING OPEN TO BICYCLES ●

APPENDIX D



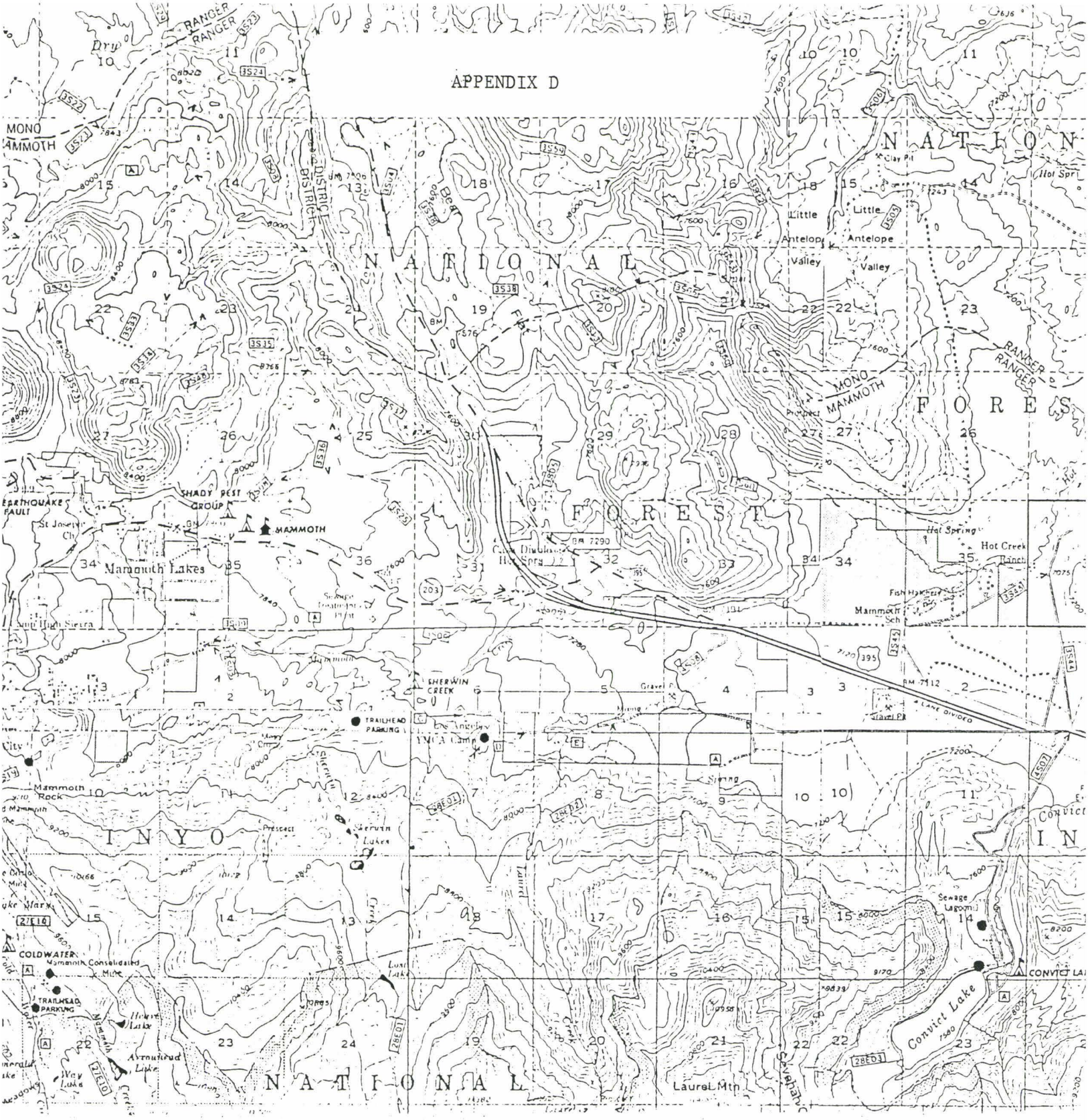
LEGEND

PLACEMENT OF TREAD LIGHTLY SIGNS SHOWING CLOSED TO BICYCLES ■

PLACEMENT OF TREAD LIGHTLY SIGNS AS REDWOOD SIGNS ●

NEED REPLACEMENT

APPENDIX D



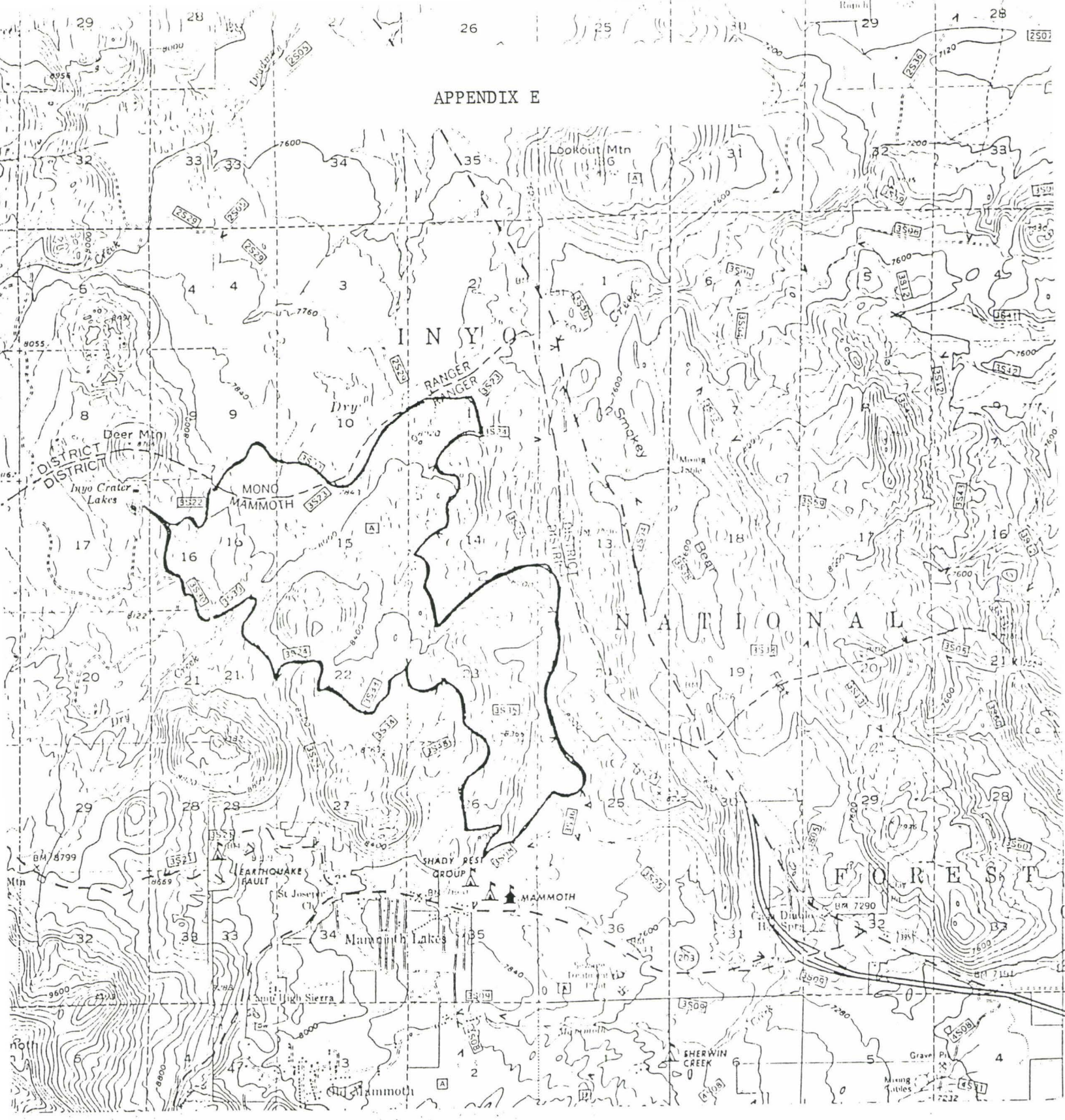
LEGEND

PLACEMENT OF TREAD LIGHTLY SIGNS SHOWING CLOSED TO BICYCLES ■

PLACEMENT OF TREAD LIGHTLY SIGNS AS REDWOOD SIGNS ●

NEED REPLACEMENT

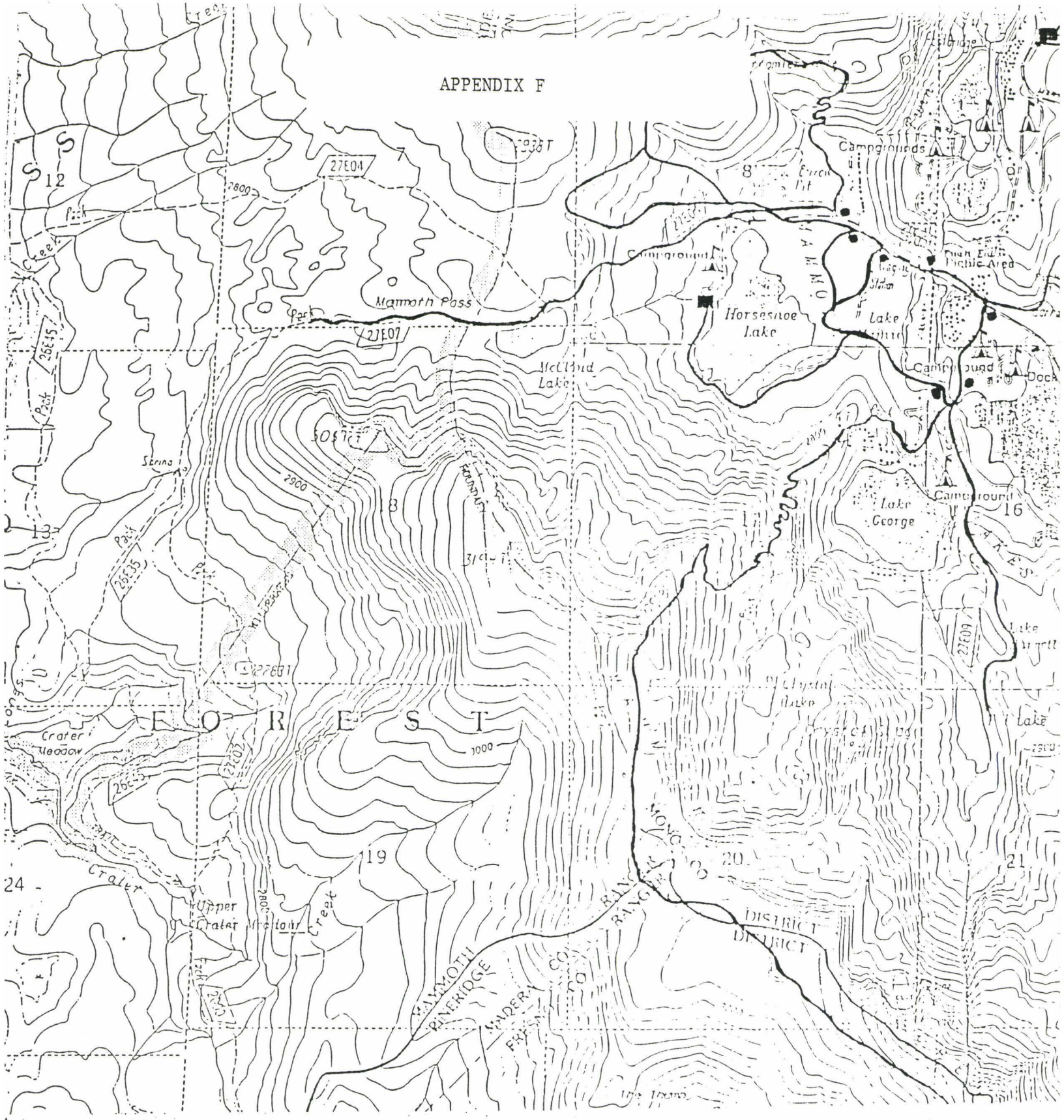
APPENDIX E



LEGEND

PROPOSED MARKED BICYCLE TRAIL ——

APPENDIX F



LEGEND

SIGN PLACEMENT

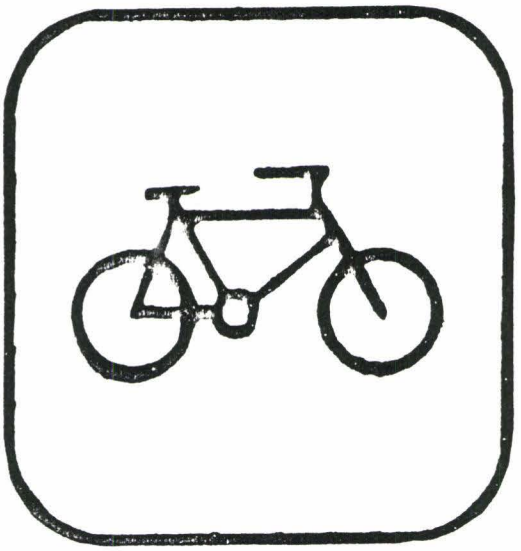
MAMMOTH LAKES PACK OUTFIT'S HORSE TRAILS OPEN TO BICYCLES

WHEN LK. MARY RD. OPENS - JUNE 15

& OCT. 1 - UNTIL LAKE MARY RD. CLOSES DUE TO SNOW ●

HORSE TRAILS OPEN TO BICYCLES WHILE LK. MARY RD. IS OPEN ■

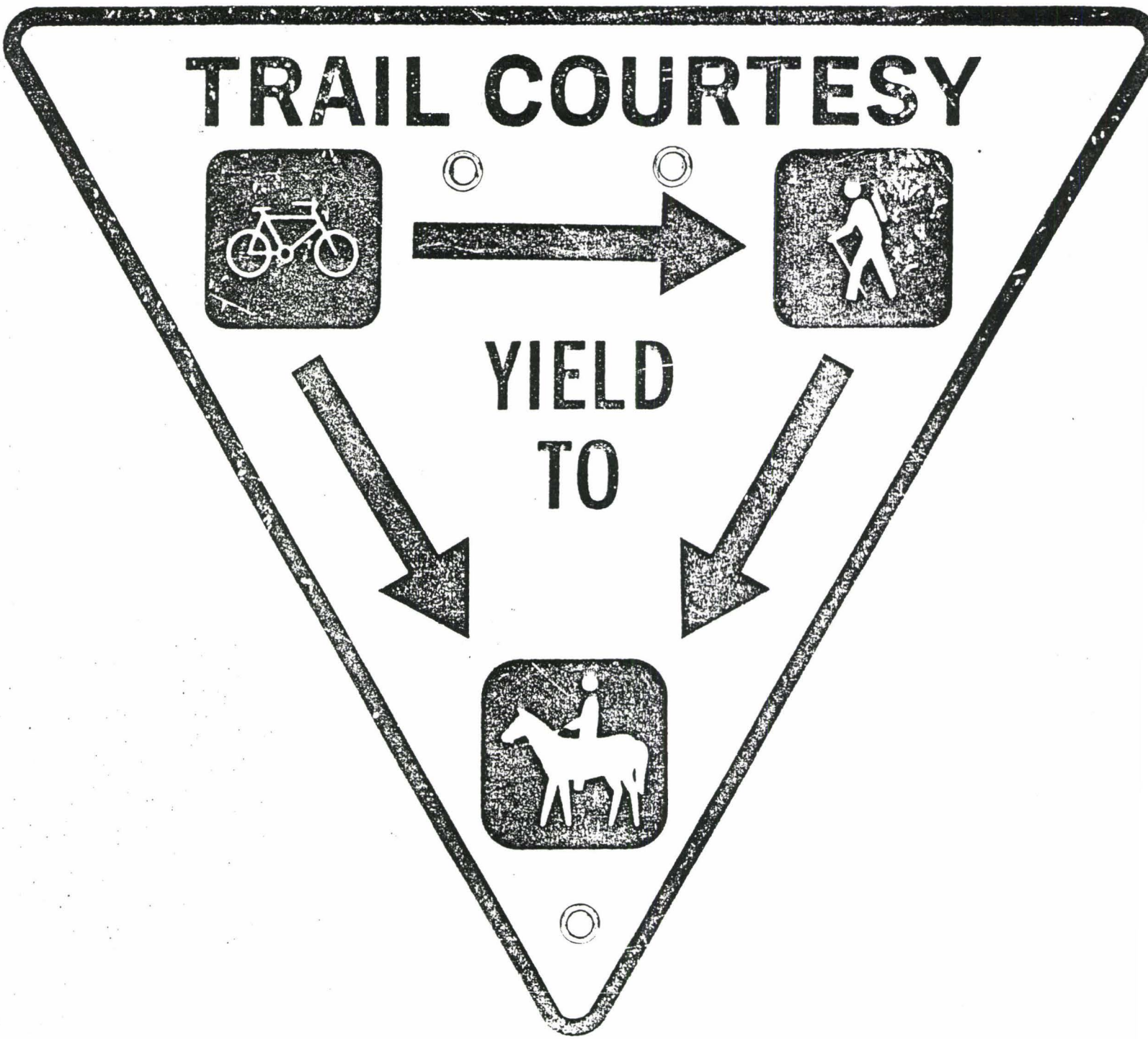
HORSE TRAILS —



It's Your Choice

Be a part of the solution, not a cause of the problem!

1. Yield right of way to other trail users.
2. Be especially careful around horses.
3. Control your speed at all times.
4. Avoid locking of brakes to minimize trail impact.


TRAIL COURTESY
YIELD
TO

APPENDIX I

MARKETING ACTION PLAN

Objectives

Provide education on mountain bike opportunities and issues.

Target Market

-Mainly local residents and tourists from the Los Angeles area

-All ages

-Income: insignificant

-Family makeup- all

Benefits

-Provide an opportunity to reach mountain bike riders on where to ride their mountain bikes.

-Provide an understanding to some of the issues associated with the sport.

-Eliminate problems with illegal riders by providing signs for routes.

Strategy- 7 P's

Product: The product is service. Are we giving the customers what they want? According to the analysis, we are not providing the mountain bike rider with the experience that they desire. There is a need to provide more trails that mountain bikes can use.

Price: Not applicable.

Place: Provide informational materials to:

Chambers of Commerce

Mountain Bike Shops

Bookstores

Regional, state and local tourist offices

Local permittees

Promotions: Promotions are listed under recommendations.

1. Advertising: Listed under recommendations.

2. Publicity: Listed under recommendations.

3. Personal selling: Direct personal communications between the agency representatives and public. Forest Service Personnel that are out in the field should take any opportunity to educate the mountain bike user. Front desk personnel at the Mammoth Visitor Center/Ranger Station will take the opportunity to educate any mountain bike user that requests information on the sport.

Participants: All employees on the District.

Physical Evidence: This is the total environment surrounding the service. It is the information area in the Visitor Center and Bike Shops. It is also the setting where signs are installed.

Process: Procedures and management through which services are provided make up the process. The process is dependent on the recommendations that are a part of this research paper.

Partnerships

There exists an opportunity to work with IMBA on developing educational materials for mountain bike riders. Mammoth Mountain Ski Area and the Town of Mammoth Lakes are other local entities interested in the promotion of mountain bike riding in the local area.

Responsible person: The District Recreation Officer.

Completion Date: This is dependent on the District's Recreation workload and is determined by the Recreation Officer.

Evaluation Benchmarks:

-Illegal mountain bike riding is on the decline.

-An increased awareness to the issues and problems associated with mountain bike riding.

-Less conflicts between mountain bike riders and horseback riders.

-Identified mountain bike routes are easy to follow.

APPENDIX J

TEXT FOR VIDEO OR TELEVISION INTERVIEW

This text is written specifically for Janis Lloyd and Don Douglass. However, it can be easily edited for use by others.

Janis: In the beginning, there was man. Ever since creation, man has found ways to recreate. As man evolved, so has the wheel. From the wheel the bicycle developed as a form of transportation and recreation.

I'm Janis Lloyd. I work on the Mammoth Ranger District of the Inyo National Forest. I was raised in Orange County and rode my street bike all over town. I had no idea that years later I'd be riding a mountain bike all over the dirt roads of the Eastern Sierra at such high elevations.

Many of you may be asking yourself, "So what is this mountain bike contraption that I see all over the country, in cities, in the woods, at the beach, and on top of cars and trucks?" This is a mountain bike. It has 15 speeds and is similiar to a road bike, except for one major difference- the size of the tires. This bicycle has been adapted to have fat tires, like the old stingrays that many remember, yet still have different gears for those grueling hills that we love to climb. Technology has given us the important adjustable seat. This is an advantage when riding on different terrain. The seat can be lowered when riding on dirt roads that might have obstacles.

I would like to introduce Don Douglass who wrote the mountain bike guide book, "Mountain Biking the High Sierra". Don knows the Eastern Sierra quite intimately. Since the 1950's, he's been bicycling, skiing, and backpacking in the Sierra's. Don, can you explain to us what one should carry when mountain bike riding?

Don: I always carry a chain remover, tire pump, spare tube, patch kit, duct tape, spoke wrench, and knife. These essential tools will help if you get into trouble with a flat tire, or other simple mechanical difficulties. When traveling long distance, it helps to have a bag to carry necessary items in.

Janis: Are there any other items you carry in order to be prepared for the weather changes that the Eastern Sierra can bring?

Don: I usually take a windbreaker, food, sunprotection, sunglasses, helmet, water, and maps. What you take depends on how many miles you're traveling and the area you're riding in. Clothing should consist of thin, flexible layers, such as knitted polypropylene or wool. With the Eastern Sierra being very dry and the sun intense, sunglasses and water are essential.

Janis: I think we're prepared to face the elements and test out our mountain bikes. All we need now is a place to ride. The Mammoth Lakes Ranger District offers many miles of dirt roads to ride on. I suggest that anyone interested in exploring the Eastern Sierra on

their bike, stop by the Ranger District to find out some of the best areas to ride. National Forests, National Parks, State Parks, Bureau of Land Management, County and City Parks, and other land agencies all have different rules and regulations pertaining to mountain bike riding.

Don: One of the most important things to remember is that bicycles are prohibited in all Wilderness areas. However, there are many other areas that are great for mountain bike riding.

Janis: Don, you've been riding bicycles in this area for quite some time. Where do you suggest riding for those interested in bicycling on trails?

Don: There are 5 blue diamond trails that mountain bike riders can use. These trails were marked in the early 1980's as cross country skiing routes. Blue diamonds have been tacked to the trees as markers. During the summer these diamonds are roughly 20 feet high on the trees. So, what do you say, how about taking the blue diamond trail that goes from the Ranger Station to Inyo Craters? It's approximately 8 miles and most of it is on a narrow trail, yet part of it is on a dirt road. Most of it is uphill from here, but the ride back will be a breeze.

Janis: Sounds great! Let's go!

Janis (at Inyo Craters): What a great way to see the volcanic history of this area! The Inyo Craters were formed over 1500 years ago when violent explosions of volcanic gas threw over five million tons of rock and debris over the terrain.

Don: You can also ride to the Inyo Craters on the blue diamond trail that goes starts at the Earthquake Fault. It's approximately 6 miles. What do you say we head up to the Mammoth Lakes Basin? There are two blue diamond trails that we can ride on- the Panorama Dome trail and the Horseshoe Lake trail.

Janis: Great idea! Then we can get a good view of the Lakes Basin, Mammoth Mountain, and Mammoth Crest. There are other blue diamond trails in the Lakes Basin. Because of heavy stock use and the close proximity to the wilderness, mountain bikes are not allowed on these trails.

Don (at Panorama Dome): Look at the beautiful colors in Red Mountain. Just think of the times when it was know as Mineral Hill. It was during the years of 1878-79 when there was a mining camp of 1,000 people there. The center of the mining camps, Mammoth City, had 22 saloons, 13 stores, 2 breweries, 5 restaurants, and 2 newspapers.

Janis: Then the Mammoth Mining company shut down during the severe winter of 1879-80. It has been said that there's just 2 seasons around here- the ending of 1 winter and the beginning of the next. Luckily we can squeeze bike riding in.

Don (at Horseshoe Lake): What a perfect lake for families. You can boat and swim, relax in the sun, and enjoy the views. This trail will take us around the lake and come out on the Lake Mary Road.

Janis: Lets hit it!

Don: Before we get going, let's go over the National Off-Road Bicycle Association Cyclist's Code. I always keep it in mind while I'm riding. There are 10 important messages in the code.

1. I will yield the right of way to other non-motorized recreationists. I realize that people judge all cyclist by my actions. (show bicyclist getting off bicycle and letting a family walk by)

2. I will slow down and use caution when approaching or overtaking another and will make my presence know well in advance. (show bicyclist yelling, "behind you on your left", and slowing down)

3. I will maintain control of my speed at all times and will approach turns in anticipation of someone around the bend. (show bicyclist coming down a hill slowly)

4. I will stay on designated trails to avoid trampling native vegetation and minimize potential erosion to trails by not using muddy trails or short-cutting switchbacks. (show riding on a road near a meadow)

5. I will not disturb wildlife or livestock. (show riding near grazing area)

6. I will not litter. I will pack out what I pack in, and pack out more than my share whenever possible. (show packing up lunch and picking up other litter)

7. I will respect public and private property, including trail use signs, no trespassing signs, and I will leave gates as I have found them. (show bicyclist looking at the closed sign for the Mammoth Rock trail)

8. I will always be self-sufficient and my destination and travel speed will be determined by my ability, my equipment, the terrain, the present and potential weather conditions. (show bicyclist getting prepared for a ride, putting rain jacket in pack)

9. I will not travel solo when bikepacking in remote areas. I will leave word of my destination and when I plan to return. (show a group of bicyclists in a remote area)

10. I will observe the practice of minimum impact bicycling by "taking only pictures and memories and leaving only waffle prints." (show bicyclist taking pictures, then zoom in for a close up of the waffle prints)

Janis (end of Horseshoe Lk. trail): I don't know about you, but this has been a great day! I hope that this helps others to have an understanding of what mountain bike riding is and what is entailed with the sport.

Don: I always enjoy exploring the Eastern Sierra on my mountain bike. By practicing good mountain bike ethics, an enjoyable time can be experienced by all.

Janis: Don, thank you for joining me today. I hope that we have encouraged a few people to rent a bicycle, if they don't own one already, and explore the Mammoth Lakes Ranger District.

(speaking to audience) Be sure to stop by the Ranger Station or a local sporting goods store for more information. And remember, take only pictures and leave only waffle prints!

11"

MOUNTAIN BIKE RIDING

PLEASE OBSERVE THE FOLLOWING RULES:

RIDE ON OPEN TRAILS ONLY

YIELD RIGHT OF WAY

CONTROL YOUR BICYCLE

LEAVE NO TRACE

NEVER SPOOK ANIMALS

BE PREPARED

10"

FOR MORE INFORMATION ON MOUNTAIN BIKE RIDING ,

PLEASE STOP BY YOUR NEAREST RANGER STATION

POCKET FOR HANDOUTS